

START

#1 Guide To Atari ST

Volume 4, Number 11 June 1990 USA \$14.95 • Canada \$19.95

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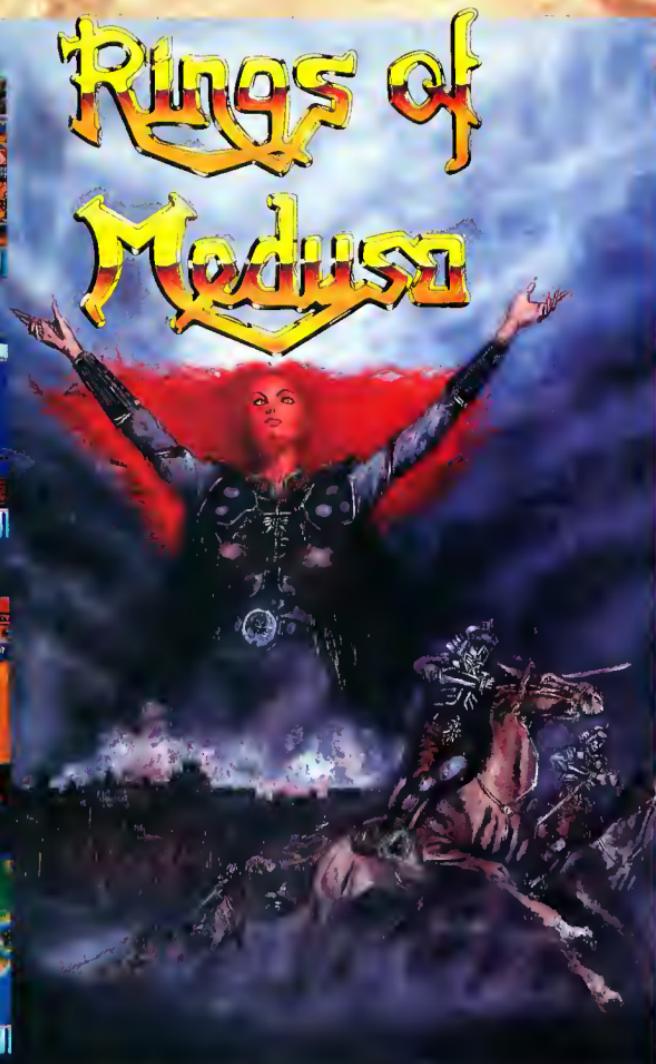
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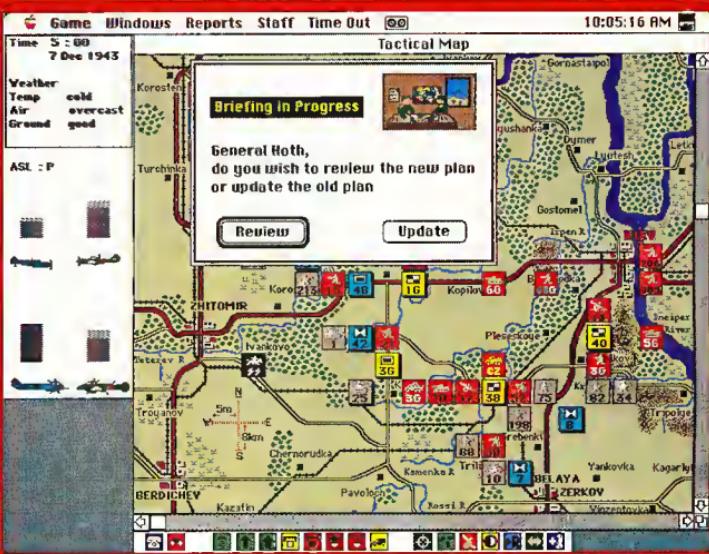
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#1 Guide To Atari ST

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Editorial

IN LIKE A LION ...

March was an interesting month for Atari Corp. The sudden layoff of approximately 15 percent of the total U.S. workforce came as a surprise to everyone. Not long afterward, Atari fired the entire staff of *Atari Explorer*, its popular bi-monthly magazine.

Mead Ames-Klein, the new president of Atari Computer (U.S.), is apparently the mastermind behind the layoffs. Although he declined a full interview, he did explain that the move was made to streamline operations. He dismissed allegations that the layoffs were a result of Atari's shrinking profits and inability to effectively move product.

The firing of the *Atari Explorer* staff is shrouded in a little more mystery. The official Atari line is that the magazine is still in business, only the staff was let go. How they intend to publish without editors is the first mystery. The second mystery is the role played by the editorial in the undistributed Spring 1990 issue, a copy of which I have. In it, editor Betsy Staples blasts "one penny-pinching sycophant in Atari's accounting department" who was late paying the magazine's printing bills. This in turn caused delays in distribution. The cover date was changed from March/April 1990 to Spring 1990 and Staples wrote the editorial feeling the readers deserved "the straight scoop."

Of course, in both cases, it would be too easy to condemn Atari for what appears to be poor decision making. It's a terrible thing to lose your job in the first place but even more so when it's through no fault of your own, as it was in the case of the layoffs (though the severance pay was reportedly quite generous). And I had great respect for the editorial staff of *Atari Explorer*. David Ahl, Betsy Staples and John Jainschigg expertly produced a quality magazine.

But if Atari needs to make operations more efficient, that's fine as long as it results in products getting out the door and an increase in sales. Further, what was said in the *Atari Explorer* editorial was damaging to Atari and they had every right to respond to it as they did — it's their magazine. On the other hand, the editorial's gripes were genuine. Still, thousands of magazines sit on a loading dock somewhere in New Jersey. The potential loss in both subscriber and advertising revenue could be quite high. What will Atari do?

I leave you to draw your own conclusions. In the meantime, START maintains its strong position in the Atari market and will continue to bring you quality ST coverage. At this writing, the World of Atari show in Anaheim is only a few weeks away. Watch for a full report soon. ■



TOM BYRON
START Editor

Dialog Box

Double-Sided Format Supporters Speak Out

No! Do not discontinue the Heidi format! You really have not given it a chance to sink in. Initially, I had problems with it too, but I learned to follow directions and everything worked out fine. Changing back again will just create more confusion.

Ed Glembotski
San Luis Obispo, CA

I'm sorry to see you drop the Heidi format. It worked just fine and gave us an opportunity for valuable additional programs and data. The instructions were too complicated, but I think that was the only problem.

Col. Jack Mathews
Falls Church, VA

Many factors contributed to the double-sided format's demise. The decision to discontinue it was a hard one to make and we too were sorry to see it go. However, we are currently looking at some viable alternatives and will keep you updated as to our progress. — START Editor.

Way To Go, Earl!

Kudos to Earl Toman for Word Puzzle Designer (START, December 1989). What a great educational program! I've used this for my son's spelling words. We load in all his spelling units and then print two or three patterns of the week's words. He takes the puzzles to school and his teacher copies them for all the spelling classes on that unit. Thanks.

Jayne Johnston
Kingsport, TN

Arkanoid II Exists

I just read in the April issue that Arkanoid II: Revenge of Doh was not going to be released for the ST. This

really surprised me, especially since I've been playing it for almost a year on my ST. Revenge of Doh is available in the Precious Metal package from Ocean Software, which also contains Super Hang-On, Captain Blood and Xenon. I've seen the Precious Metal package in several mail-order ads. I purchased mine from BRE Software for \$34.95.

Matt Brady
Visalia, CA

Thanks for the information, but some clarification is in order. Taito is the official North American distributor for such games as Arkanoid and Bubble Bobble. As we reported in April 1990 "News, Notes & Quotes," Taito of America has ceased development on the ST. The copy you found is a European import. — START Editor.

Wanted: One Buyer's Guide

One of the most useful issues you ever published was the START Buyer's Guide (Special Issue Number One). It's been two years without a sequel. The Softguide programs are helpful, but they're not the same as a buyer's guide. I want to know (in more detail than Softguide) what's currently available and what's not (i.e., are DEGAS Elite and Abacus books and programs still retailing?). Please, another buyer's guide.

David Finkelstein
Philadelphia, PA

START has a special ST buyer's guide in the works tentatively scheduled to be released in the latter part of this year. As to your specific questions, Electronics Arts has discontinued DEGAS Elite from their product line. Abacus is still going strong. Their most recent release was The Complete Guide to the Atari Portfolio. The address and phone number for Abacus is 5370 52nd

Street SE, Grand Rapids, MI 49512, 800/451-4319. — START Editor.

Eureko

I only recently discovered START and I'm very impressed. You have dispelled any doubts I had in the Atari system. I hadn't realized there were so many ST programs available. However, I cannot find a word processor that meets my needs. I want to write books and academic papers so I need a word processor with features such as footnotes and margin settings. Any suggestions?

John Perry
Winnipeg, Manitoba

In the April 1990 issue of START, Dan Fruchey wrote an extensive buyer's guide to word processors that we think you'll find helpful in making your decision. Most ST word processors let you set margins. At this time, only WordPerfect, 1st Word Plus and WordUp handle footnotes. — START Editor ■

SUBMISSION INFORMATION

START welcomes submissions. Please include both hard copy printouts of articles and program listings as well as disk files on ST compatible disks. Media will be returned if self-addressed, stamped mailer is supplied. START assumes no responsibility for unsolicited editorial materials.

Do you have questions about using your ST? Is there something you're not clear about? Every issue, START's editors listen to your comments and answer your questions in Dialog Box. Let us hear from you! Our address is:

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ALERT BOX

CAD-3D Confusion

Several people complained that they could not use the files they created with CAD-3D version 1.0 in the CAD-3D Animator, nor use the .HI and .LO example files which came on disk (March 1990). The problem is that the animator is looking for some extra files.

CAD-3D saves objects in files with the extender .3D. In order to use ANIMATE.PRG, you also must create a .DLT and a .PIx file. Low resolution results in a .PI1 file; high resolution results in a .PI3 file. The .PIx file contains the first frame of your animation. The .DLT file catalogs the changes in the position of the camera and lights.

Within CAD-3D, put the first view of the object in the Camera screen and press [Alternate]-[R] to start recording. This creates the .PIx file. Now change the camera position to the next scene you want recorded, then press [Alternate]-[R] again. This begins placing subsequent views of your object in the .DLT file. Repeat this step until your animation is complete. Now you can go to the Animator.

Double-click on ANIMATE.PRG, choose Load from the File menu, then select the folder which contains your animation. It is best to place each animation in its own folder because the Animator automatically assumes that the first file with a .PIx extender is the one you want to run.

Unfortunately, the example files on the March disk are unusable. We apologize for any frustration you experienced.

PHASAR Fuddle

PHASAR version 3.0 (April 1990) does require a .CFG and a .REG file to run properly, but they contain data unique to your financial situation so you should create them yourself. No .CFG file was included on the disk; select Set User Preferences under the Setup menu to create one. The .REG file we put on the disk contains tutorial data; make a backup of it, then create your own by selecting Create New Register File under the Setup menu.

Which Way to the Revolution?

In the Dialog Box in the April 1990 issue we published the wrong address to write to for information about the Revolution. Address all queries to: Artisan Software, P.O. Box 849, Manteca, CA 95336. We apologize for any inconvenience we may have caused. ■

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A DARK AND STORMY NIGHT



Everyone has at least one game scenario in them, but most should never be written. Well, now's the time to release those caged monsters. We want your purplest prose, your corniest plots. Flex those puns! Dare to parody! Enter START's Bulwer-Lytton Game Scenario Contest, named for the 19th-century author of a forgettable novel with an unforgettable opening, "It was a dark and stormy night."

PRIZES

- Grand prize is an Atari Lynx game machine and the Lynx-designed games.
- First prize is 10 ST games.
- Second prize is a one-year subscription (or renewal) to START magazine.
- Third prize is two hint books from Silicon Valley, *Falcon* and *King's Quest Companion*.

CONTEST RULES

1. Maximum length of 100 words.
2. No handwritten entries will be accepted.
3. Entries must be received by July 31, 1990.
4. The totally subjective decision of the START editorial judges is final.
5. Contest is not open to Antic employees or their families.
6. All entries become the property of Antic Publishing and will not be returned.

Winning entries will be published in the December 1990 issue of START.

News, Notes & Quotes

BY STEPHEN MORTIMER, START CONTRIBUTING EDITOR

Inside Atari

Mead Ames-Klein has been named new president of Atari Corp., replacing David Harris in that position. Harris' appointment, which was announced in April's "News, Notes and Quotes," now appears to have been intended as temporary only, until a permanent successor to Mike Morand could be found. Ames-Klein comes from the

Koala Springs beverage company and is noted for his marketing skills (this is reminiscent of John Sculley coming to Apple from Pepsi). Ames-Klein will oversee both Atari Computer (U.S.) and the entertainment division.

Also riding the merry-go-round is Bob Thomas and Associates, which replaces Marken Communications as Atari's public relations firm. Their address and phone number are 228 Manhattan Beach Blvd., Manhattan Beach, CA 90266, 213/376-6978. Bob Thomas and Associates is a subsidiary of the San Francisco advertising firm Chiat/Day.

The good news from Atari is that the Laser Brain Epson-printer emulator has been released as freeware. Laser Brain is an improvement on the buggy Diablo emulator, which was incompatible with many software packages. Written by Germany's DMC, Laser Brain works with a monochrome system and multiple, user-installed fonts. Since it's freeware, Atari won't guarantee its compatibility or future upgrades.

Still waiting for release are MIDI-Tasking, Cookie Jar, Expandable Control Panel and the new GDOS that supports scaleable outline fonts.

Wireless Data Network

Motorola and IBM announced a new wireless data network that will give portable computers across the country access to their fixed counterparts. A Motorola terminal is needed to use the network, which is expected to be fully operational later this year. You can either use the terminal as if you were a remote site linked by telephone lines, or it can serve as a modem for other computers, such as the Stacy or Portfolio. Atari has reportedly demonstrated a system using the Motorola terminal's modem function.

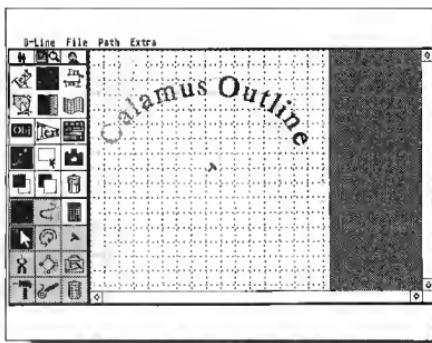


Fat Bits

- Advertisements for the Stacy, which received Class-B FCC certification allowing non-consumer sales, appeared in the March issues of *Keyboard* and *Electronic Musician* magazines (most recent issues at press time).

- IBM and the West German conglomerate Siemens have agreed to jointly develop the next generation of memory chips. Research on the 64-megabit chip will take place at IBM's Advanced Semiconductor Technology Center in New York, another facility in Vermont and in Munich. The companies plan to ship a finished product by the mid-1990s.

- Calamus Outline, a \$289.95 art package similar to the Mac's Adobe Illustrator, was released recently to an enthusiastic public. In order to establish Outline as the standard in illustration software, ISD bundled an Outline-to-Postscript conversion program with it. ■



ISD is now shipping Calamus Outline.

If you have a hot tip let us know at **News, Notes & Quotes, START Magazine, 544 Second Street, San Francisco, CA 94107**

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European Report

BY DONALD MAPLE, REPORTING FROM WEST GERMANY

Racist Games Spread

Along with the resurgence of the extreme right in the political arena, a disturbing number of racial and neo-Nazi computer games have spread throughout Europe, especially in Germany and Great Britain. These games — "Concentration Camp Manager", "The Anti-Turk Test" and "Paki-bashing" — can be found in schools, where the youth seem to be titillated by the games' forbidden nature and not fully aware of their implications. Some of these programs are original and some mimic commercial software; obviously people have spent a lot of time creating this "entertainment."

Sex!

And now that I have your attention — a serious subject. The Organisation Against Sexism In Software (OASIS) is a London-based group founded to fight sexual stereotyping in software. For example, how many times have you seen a game advertisement featuring a macho hero decorated with scantily clad female-oids? OASIS is concerned with the attitudes that produce such work, and how they apply to and affect both sexes. For more information and a bimonthly magazine send a U.S. equivalent of five British pounds to:

Sandra Vogel, OASIS

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Great Britain

Computer Spies Convicted

German citizens Dirk Brzesinski, Peter Karl and Markus Hess were convicted of espionage Feb. 15 for cracking American military computers and selling their telephone numbers and access codes to the KGB. They received \$54,500 for the secrets from their Soviet contact, "Serge," although Brzesinski claims their main motivation was to help the Soviets raise their technology to the level of the West. The three were sentenced to between 20 and 24 months in prison. The fourth member of the group, Karl Koch, allegedly committed suicide before the trial by setting himself on fire in a forest near Hannover. (Editor's Note: *This was the group hunted by astronomer-turned-spycatcher Clifford Stoll, who told his story in The Cuckoo's Egg, reviewed in the February 1990 issue of START.*)

Computer Court

Great Britain's courts will soon automate their summonses, giving the job to a 16MB Data General Eclipse computer. The system is expected to send out an average of 3,000 letters per day, but is capable of generating up to 10,000. The computer will handle only cases involving fixed amount payments such as utility or credit card debts.

First Apples, Now Broccoli?

The Systems Exchange, a London-based computer company, announced plans to build an "ecologically-sound" machine. The casing for this IBM-compatible is made from a mix of polyurethane (vegetable oil) and coal ash and is sold with a radiation-free monitor. Now that the technology is available, will we soon see a "green" ST? ■

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Comrade

BY AMY H. JOHNSON

The Soviet Union's One-Man Game Industry

Alexey Pazhitnov didn't plan to be a global wunder-kind, but the runaway success of *Tetris* made his name famous within the computer entertainment industry. When a star lives halfway around the world, however, few people get a chance to learn much about him. START caught up with Comrade Alexey on his whirlwind tour of the United States and peeked at the man behind the mega hit.



Alexey

START PROGRAMS EDITOR



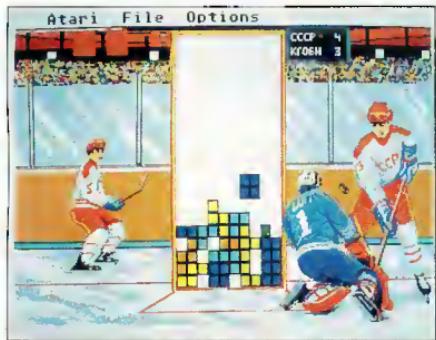
Alexey Pazhitnov doesn't want to face two more journalists quizzing him about sales, software and the Soviet Union. But publicity is a skill all successful entrepreneurs need to master and he approaches his task with grace and good humor, a little stunned to find himself a hot story in America. After all, he only invented a little game of falling blocks, a little game called Tetris, a little game that has sold millions of copies worldwide and made the modest Soviet mathematician a Western symbol of the emerging, glasnost-era capitalist.

Dressed in jeans and a grey sweater, the bearded, 34-year-old father of two looks more like the academic he is than the vanguard of a shifting economy. But ever since he arrived in America, landing in the middle of the swarming sales pitch that is the Las Vegas Consumer Electronics Show, he's been riding a public-relations blitz like a Cossack on a cavalry charge.

In San Francisco he attended a press reception in his honor at a plush hostess suite at Union Square's St. Francis Hotel. Local press and Soviet diplomats nibbled quiche squares and mingled with executives from Spectrum Holoboye, Pazhitnov's American publisher, who had obligingly installed computers loaded with his latest creation, Welltris, a 3D version of Tetris. (Spectrum estimates that the ST version of Welltris will be released around Christmas). The author patiently posed for pictures, answered questions and autographed game boxes. "Play TETRIS!" he boldly wrote across the spires of St. Basil's cathedral.

Tetris Takes Off

People have been playing Tetris since 1985. "When Tetris became popular it was like a fire in Moscow," Pazhitnov remembers. The first ➤



Tetris was a smash hit in America.



Welltris is a 3D version of Tetris. Both Tetris and Welltris were illustrated with graphics inspired by the photgraphy book *A Day in the Life of the Soviet Union*.

version of the game was written for an old-technology DEC-compatible computer with no graphics. Pazhitnov formed the game pieces, a quartet of blocks, with square bracket characters. The game play was simple: rotate the different configurations of four blocks (Tetris is a play on the word *tetra*, which is derived from the Greek *tettares*, meaning four) so that when they fall to the bottom they form a solid line across the screen. The line disappears; the blocks keep falling. You lose if the blocks stack up to the top of the screen.

This deceptively simple task, the product of a mathematician's abstract, ordered mind, proved universally addictive. The game became a favorite pastime at the U.S.S.R.

Academy of Sciences Computing Center (Academy Soft), where Pazhitnov still works as a programmer, designing CAD/CAM, speech recognition and psychology soft-

It was a spectacular hit in America — the first computer game from the Soviet Union — selling well over 100,000 copies and spawning versions for the Nintendo Gameboy and video arcades. It swept most of the 1988 Software Publishers Association Excellence in Software Awards for the entertainment category: Best Action/Strategy Program, Best Entertainment Program, Critic's Choice: Best Consumer Program and Best Original Game Achievement. And it's earned Pazhitnov enough money to make him well-off by Soviet standards.

Ironically, its success was accidental. Tetris started life as an intellectual exercise.

"The best way to study new equipment is to write a small program," claims Pazhitnov, who speaks fairly fluent English. "I prefer to write games or puzzles."

Wanting only to see his little test program published, Pazhitnov assigned his rights to Academy Soft, whose director launched it westward. There was no other direction to go.

Softwhere?

The U.S.S.R.'s software market is virtually non-existent since the country lacks an installed computer base to support it, says Pazhitnov, who owns an IBM AT with an EGA

Pazhitnov has been riding a public relations blitz like a Cossack on a cavalry charge.

ware. When a spruced-up version was ported to the IBM PC with the help of then-16-year-old hacker Vadim Gerasimov, Tetris spread throughout the East Bloc, leaping the Iron Curtain into Western Europe, where it was picked up for U.S. distribution by Spectrum Holobyte.

board and what may be the only Nintendo Gameboy system in Moscow.

"When I write a game I take in mind this (foreign) market, not the Soviet market," he says. He keeps up with developments overseas through the computer press (BYTE and PC

World) and foreign businessmen.

Even as he cocks one eye westward, Pazhitnov continues to write games that he likes to play. "Why do I have to write a hit each time?" he asks rhetorically, alluding to pressure to produce a smash follow-up to Tetris.

He refuses to cater to one segment of the foreign market: shoot'em up games. He doesn't like to play them and he doesn't want to program them. People who play his games, he brags, "have to think."

Pazhitnov is a prolific programmer, showing software houses about 10 games on this, his first, trip to America. He no longer gives away the rights to his work, having contracted with a joint venture company named Dialogue. He expects his third American release this summer, another geometric puzzle he calls Swap and Drop, but which Spectrum Holobyte wants to publish as Hatrix.

"It's another kind of thinking, another kind of playing," he says, trying to differentiate number three from Tetris and its derivative, Welltris. It's the end of a two-hour

ATARI IN EASTERN EUROPE

The recent U.S. proposal to lift trade sanctions to Eastern Europe was met with guarded enthusiasm by Atari Corp. The proposal was made to COCOM, a 15-nation group that regulates technological transfers to the East Bloc. At press time, COCOM had not announced a decision.

Max Bambridge, an Atari spokesperson, said the company's position on lifting trade sanctions is that "the free availability of computing power is not to our disadvantage."

Bambridge acknowledged that due to the East Bloc's lack of consumer goods, like personal computers, "we have to plan to have long-term relationships where we can go in and provide support services, if needed, and sell upgrades."

Learning the Business

Pazhitnov is quickly losing that innocence. He learned a lot during the Tetris negotiations, he says. The U.S.S.R. lacks the army of lawyers, financiers and managers available to U.S. dealmakers, so Pazhitnov, the point man of the Soviet software revolution

Atari will most likely pick East Germany to begin its marketing push, building on the company's current success in West Germany. "They (East Germany) may have the most viable of the economies in Eastern Europe right now," Bambridge said. "I would be extremely surprised if they did not turn out to be a major player very quickly."

(Editor's Note: *Although no official East German branch exists, Atari reportedly commands between 30 and 50 percent of the 16-bit computer market there, due to the STs availability in hard-currency stores. Atari presently manufactures 8-bit machines in co-venture with the Soviet Union.*)

— Richard P. Greenfield

That dual nature is what has caught the eye of American businesspeople, eager to equate Perestroika's restructuring with embracing capitalism. About 150 of them crowded into the "First U.S.-Soviet Personal Computer Seminar," held at San Francisco State University the day after Pazhitnov's press reception at the St. Francis. Conference organizers expected a third that number.

Pazhitnov, the accidental entrepreneur, sat on a panel during the conference, facing the news camera along with the expatriates, Soviets and Americans promoting new trade ties. He didn't speak much. Always the gentleman, he told the audience he was happy to be in the United States and how much he liked the country. He didn't mention that sales pitches and public relations appearances barely left him time to take a brief walk around San Francisco. Like any quick study, he told the audience what they wanted to hear. And the audience embraced him, the Soviet Union's one-man game invasion, harbinger of other Cosacks charging the trade barriers. ■

An Atari ST version of Welltris is planned for a Christmas release.

interview and clearly tired, Pazhitnov vaguely describes his new game as requiring the player to swap and distribute two different objects, matching them with others on the screen, then dropping them. His candor dismays Spectrum's assistant marketing director, Rita Harrington, who later shrugs off Pazhitnov's premature announcement of a product for which the company has yet to develop packaging or promotion as the price to pay for his politeness and business innocence.

tion, has fought alone to master the unfamiliar contracts and agreements vital to his new business. Paperwork isn't his favorite thing, he admits, but he accepts its necessity calmly; like interviews, it's now part of his job.

Pazhitnov readily slips between jobs, from shy scientist to businessman. Upon meeting someone he whips out an embossed business card like any power-suited M.B.A. His cards, however, reflect the global nature of his enterprise; one side is in English, the other in Russian.

THE GRETZKY



CHALLENGE

Hockey Great Becomes Software Consultant



BY SCOTT WASSER

Sure, programmers have developed hundreds of sports simulations for the home computer, but how many can claim a legend as one of their consultants? Bethesda Softworks teamed up with Wayne Gretzky, star of the Los Angeles Kings, and other hockey experts to bring to the ST what may be the best hockey simulation ever.

Y

ou can hear the excitement in Chris Weaver's voice when he talks about Wayne Gretzky Hockey, an ice hockey simulation that he flatly states will be "the biggest entertainment program of the year for the ST."

Bolstering his claim is the Software Publishers Association award for Best Sports Simulation of 1989. And the game ought to be the best, considering who he had helping his development team — one of the National Hockey League's best players, superstar Wayne Gretzky.

Weaver says Gretzky contributed more than just his name to the simulation. Although playing hockey 10 months a year — first in Edmonton and now in Los Angeles — made it difficult for Gretzky to visit company headquarters in Maryland, he corresponded with the folks at Bethesda Softworks by phone and mail.

"And whenever he was here in the (Washington, D.C.) area, he came to the lab," Weaver says. "When Wayne wasn't available and we needed something, we used the Washington Capitals as our experts.

"The Capitals went way beyond the call. They deserve a lot of recognition for their involvement. They let us come and study their games, talk to their players and helped us any way we asked. And they received absolutely nothing for their services, other than our undying gratitude." ▶

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Weaver also is grateful to Doug Carpenter, who currently coaches the Toronto Maple Leafs. Carpenter led a team of three NHL coaches who rated the skills of real-life hockey players so that they could be programmed into Wayne Gretzky Hockey.

Understanding the Game

To understand the various players' and coaches' involvement, it's necessary to understand a little about Wayne Gretzky Hockey.

Wayne Gretzky Hockey was an ambitious project for Bethesda Softworks, which is a division of the engineering research and development firm Media Technology, Ltd. Weaver initiated the project with a simple goal in mind: he wanted to create the most realistic sports simulation ever produced for a computer.

"One of the very reasons we chose hockey," Weaver says, "is because it

was one of the most difficult sports simulations we could do. In hockey, unlike football or baseball, the computer doesn't have time to think between plays. If you can program a good hockey simulation, you can program anything.

Weaver explains his philosophy: "Graphics do not make a good game any more than storyline makes a good game. They are an intrinsic part of it, but only a part. What we really want to do in our sports simulations is create a model of the sport we're simulating. Graphics is only part of that model."

Wayne Gretzky Hockey typifies that attitude. At first glance, the initial impact is underwhelming. It lacks the dramatic 3D, on-the-field perspective offered by some other sports simulations.

But playing the program for a few minutes leads to a new appreciation. The great strength of Bethesda's

program is the faithful way it translates ice hockey, with all its subtle nuances, to the ST.

"I'd Never Do That"

"We took the time to sit down with literally three or four dozen hockey owners, players and general managers," Weaver says. "That included the time we spent with actual players looking over our shoulders at the game and saying things like, 'No, I'd never do that in that situation.'

"The culmination of that is the players in the game have their own artificial intelligence. If you're playing the game, and a defenseman with the puck has opposing players coming at him, instead of just passing to an open man he'll try to go around the other players to retain control of the puck."

Weaver continues, "That's what a real hockey player would do. And that's something that's not pro-

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grammed into the game. It's not a canned move. The player does that because it would be the most logical thing to do in a real hockey game."

The computer-generated players who make those moves in Wayne Gretzky Hockey are based on real-life athletes. Maple Leafs coach Carpenter and two other NHL coaches rated current and former players in 11 different skill categories (nine for goalies) for the simulation.

"By using skill categories for the players, we can actually create a signature of that particular player," Weaver explains. "The game is realistic enough that if a player is not rated properly, he's not going to play the game the right way — the way he would in real life."

True-to-Life Simulation

Weaver chuckles as he tells the story of Gretzky's most recent visit to Bethesda Softworks headquarters in

Rockville, Maryland. Gretzky, who was accompanied by then-Los Angeles Kings teammates Bernie Nichols and Marty McSorely, stopped by to check out the final version of the game.

While Weaver was showing off the simulation, McSorely pulled a chair up to the computer and leaned over so that his nose was only inches from the screen. The hulking defenseman's head rotated back and forth for 10 minutes while his puzzled teammates and Weaver watched.

According to Weaver, McSorely finally jumped up and proclaimed, "It's amazing. He [an on-screen player] did exactly what I would have done if I were on the ice." ■

Scott Wasser is a freelance writer who lives in Shavertown, Penn. He wrote the desktop publishers comparison in the April 1990 issue of START.

AT A GLANCE

| | |
|------------------|---------------------------|
| Game: | Wayne Gretzky Hockey |
| Company: | Bethesda Softworks |
| P.O. Box: | 7877 |
| Address: | Gaithersburg, MD 20898 |
| Phone: | (800) 677-0700 |
| Or: | (301) 926-8300 |
| Price: | \$49.95 |
| Summary: | Engrossing and realistic. |

To some fans, ice hockey is a sport of power and violence. To others, it's a well-choreographed dance of finesse and precision. And to still others, it's a strategic battle of wits; a chess game on ice. Bethesda Softworks' Wayne Gretzky Hockey is all of these. It is one of the most complete, realistic and engrossing computer sports simulations ever created for the Atari ST.

Six different 20-man teams are provided in Wayne Gretzky Hockey, but you can also create your own with the roster editing function. Each player is rated in categories such as quickness, power, puck control and shooting. The program lets you study the rosters to set up forward lines and defensive pairings and select a starting goalie. Gretzky's own suggested line combinations are included as default settings.

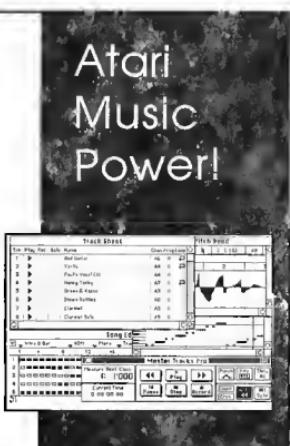
Virtually every aspect of pre-game set-up is handled through menus. By simply highlighting items, you select either mouse or joystick control, the length of periods (the game is played in real-time) and speed (normal, slow or novice).

You can coach and skate, coach only or skate only. As a coach, you set up the lines (including power play and penalty killing units), decide when to make substitutions and dictate team strategy. As a player, you can decide what position to play and then make all the moves associated with it. You control the speed, posi-

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WAYNE GRETZKY HOCKEY

REVIEWED BY SCOTT WASSER

tioning, shooting and checking of any of the skaters. You can even demand a pass from your teammates or grab an opponent to slow him down.

Player control is surprisingly easy. The skater you control is distinguished by a different color helmet and follows an on-screen cursor. To shoot or pass the puck, you move the cursor quickly over your target, then press the mouse or fire button.

About the only limitation you face as a coach is that your repertoire consists of five basic plays and you cannot draw up your own. As a player you can-

Are you skating on thin ice? Wayne Gretzky Hockey can fix that. Pick your puck against the class champ in this ultimate simulation from Bethesda Softworks.



Gretzky's own suggested line combinations are included as default settings.

Created with consultation from the superstar himself, Wayne Gretzky Hockey is so realistic, you'd better don a parka and gloves to play.



not play goalie or decide what type of shot your on-screen persona will take.

The most significant attribute of Wayne Gretzky Hockey is the realism. Penalties are called and fights break out. The puck skitters over the ice, which changes as it becomes skate-worn. Digitized sound effects report the pucks caroming off the boards and the players ramming each other.

You have an aerial view of the rink. A little more than two-thirds of it is showing at all times on a horizontally scrolling screen. While you see the action from a distance, however, the animation is so smooth that you quickly get caught up in the game.

In fact, Wayne Gretzky Hockey ranks in my library as one of the most engrossing sports simulations ever made. With its astounding realism, depth of play and attention to detail, the game is as big a winner as Gretzky himself. ■

Behind the Scenes

AN INTERVIEW WITH
BY
RICHARD
MONTEIRO
PSYGNOSIS ARTISTS



Garvan Corbett designed everything in this forest scene from *Barbarian II*.



From the eerie surrealism of Menace to the demonic imagery of Baal, Psygnosis' graphics stand out in the game world for their consistent high quality. START correspondent Richard Monteiro traveled to Psygnosis' Liverpool office to talk to the artists behind the scenes.

W hatever your gaming preference — adventure, arcade action, shoot'em up or strategy — you can doubtless point to any Psygnosis title as an example of "how it's done." But it's probably not the range of game genres for which you best remember Psygnosis, nor even the addictive quality of the games. Most likely, it's the graphics that stick in your mind.

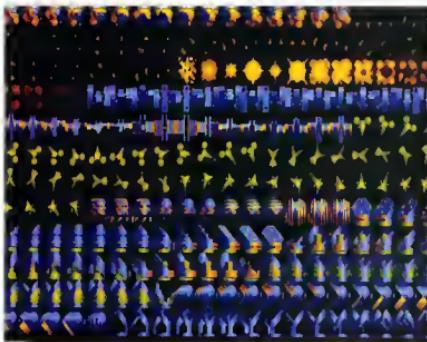
At Psygnosis, graphics are all important. As John White, product development manager, puts it, "Unlike sound, you can't switch off a game's graphics; they are present from



Because Stryx was running late, Jeff Bramfitt helped out by producing the hive section of the game.



Jim Bower's work on Infestation's death sequence ended up in the pixel dustbin due to space limitations.



beginning to end of a game. First impressions count. Half the battle is won if the visuals are interesting."

Interesting visuals in games such as Arena, Cronous Quest and Barbarian first brought Psygnosis attention. Their Barbarian was arguably the first game to show the difference between 8- and 16-bit machines. While the sound and gameplay caused excitement, it was the graphics that really stood out, and still stand out today. The detailed backdrops, the animation, the comical sprites — it was the beginning of something special.

The Sprite Brigade

Today that something special comes

from their stable of artists: Garvan Corbett, Jeff Bramfitt, Jim Bowers and Neil Thompson. (Editor's note: *Thompson declined an interview since he joined Psygnosis very recently.*) So strong is Psygnosis' commitment to graphics that it employs these four men full-time in-house, while using freelancers for coding and game development. The art team cleans up sprites and animations created by outside programmers, draws title screens and loading sequences, and designs the graphics for many games from scratch.

The artists use Commodore Amigas running Deluxe Paint III to do all the design work. Psygnosis chose

the Amiga because it can emulate the ST's low resolution (320 x 200) 16-color mode, while the ST is incapable of emulating the Amiga's 32-color low-resolution mode. Once the artists have tweaked 16-color graphics designated for the ST, they give programmers Amiga disks containing images in IFF format for conversion and subsequent manipulation.

What, Me Hurry?

Compared to most software houses, Psygnosis' working practices are odd. There is no rush to get the job done. A game is finished when everyone agrees they've done their best.

"There is no time limit when



The animations in Barborion (left) display Corbett's trademarks: big feet and outline graphics. He promises that the forthcoming Barborion II (right) will be a lot bloodier.



Bromfitt is responsible for Corthoge's graphics and a good deal of its design. The game's horses, chariots and Romans fit right in with Bromfitt's preference for realism.



Although these images for the soon-to-be-released Matrix Marauders look digitized, they're not. Bowers spent hours shading and blending the graphics to give them a metallic look.

designing the graphics for a game," Corbett says. "I like to get the job done in six months, but it doesn't matter if it takes longer. It's getting the game to look good that's important."

The four artists have free reign over a game's graphics. They're given a rough story outline by the programmer or game designer, then the artists are on their own. They decide upon the look of every sprite, every animation, every background, the startup screen — everything.

But that liberty is a two-edged sword.

"It's great having that sort of freedom," Corbett says. "What's not so great is coming up with the ideas."

Bowers agrees. "It's very easy to spend three weeks out of a month scratching your head looking for inspiration and the final week sitting down to draw."

Meticulous detail often clashes with space constraints; a lot of graphics end up shelved. "Designing computer graphics is much like writing," Bramfit explains. "You can't get too attached to your work. Just as editors will chop text, so programmers and game designers will remove sequences of animations and sprites."

After seeing his work end up in the pixel dustbin, Corbett doesn't produce as much now. Bowers, on the other hand, takes a philosophical approach. "Yeah, well, it's the way of the world," he says.

Who's Who

Each of the Psygnosis artists generally works on a different project, although each has his own specialty that might be called upon from time to time.

Garvan Corbett joined Psygnosis five years ago on the recommendation of a friend who worked there. At the

time he was enrolled in a government-sponsored workfare program, since the job market for artists was tight. All three illustrators, in fact, spent time on that workfare program; Bramfit was Corbett's and Bowers' boss.

Corbett never used a computer for design work until he joined the software company. "The ST was the first machine I came in contact with and DEGAS Elite the first drawing package." So far he's been responsible for the graphics in *Bratacus*,

ters — over and over again. *Barbarian II* is a great example. I was responsible for the first version and consequently have all the frames from the early game. Naturally there will be vast improvements to the sequel and the character you control will probably have 100 frames of animation."

After his stint on workfare, Jim Bowers applied his art foundation coursework to sketching kitchen layouts for an interior design firm. Two and a half years ago, about the

time he got bored with refrigerators and sinks, his friends from workfare offered him a job at Psygnosis.

He, too, had never used a computer for design before, but quickly grasped the overall scheme of things.

Bowers is a loading-sequence and 3D-design man. His work includes the loading sequences for *Obliterator*, *Matrix Marauders* (not released yet) and *Infestation*. He also crafted the 3D graphics in *Infestation*.

You'd be forgiven for thinking Bowers produced most of his work with help from a video digitizer. It's his technique. "I go for impression

rather than detail," he says. "Shades and subtlety are what give my graphics their digitized look."

The results speak for themselves. Unless you saw Bowers in action at the keyboard, you'd be convinced he hid a video digitizer and camera in his pocket.

Friendly rivalry exists between the artists. Jeff Bramfit loathes video digitized graphics and cartoon characters with big feet. He prefers realism to surrealism. For the past year Bramfit has been designing *Carthage*, a strategy game set in the Roman era complete with Ben Hur-style chariot racing.

Like Corbett, Bramfit has a con-

Graphics are all important in Psygnosis games.

Deep Space, Barbarian and Stryx.

Corbett's forte is designing cartoon characters. "I just love Disney cartoons, and especially Tom and Jerry," says the largely self-taught 28 year old. "I learnt so much simply by studying the animations."

It's easy to spot Corbett's work since, he claims, "big feet and outline graphics are my hallmark." According to one of the Psygnosis game testers, Corbett also enjoys producing pencil drawings of large, intimidating

Psygnosis employs four full-time artists.

women with forked tongues. Unfortunately, Corbett wasn't willing to show off these.

Barbarian II is Corbett's latest project. He'll produce the animations for the characters and design the backgrounds. Since he illustrated the original *Barbarian*, however, he has a head start.

"Just as programmers build up libraries of source code," he explains, "so we accumulate disks full of characters and other graphics. It's possible to get away with the same ideas — and often the same charac-

ventional design training behind him. "Computers and art did not mix at the polytechnic I attended in Liverpool," Bramfitt remembers. "Indeed, computer art was and still is frowned on by illustrators and fine artists.

"Joining Psygnosis was a bit of a shock. I came to the interview, they sat me down in front of a computer and told me to draw a picture. I

was there all day drawing this image pixel by pixel."

Bramfitt started life at Psygnosis three years ago designing title screens and death sequences. His work appears in Barbarian, Terrapods and Aqua Adventurer.

Not By Design

None of the artists at Psygnosis used a computer for drawing before they

joined the software firm. But then, they weren't hired for their technical know-how; they landed their jobs because they knew how to draw.

Their most difficult task is achieving realistic motion. Bowers tends to look

paper. Sketching on paper can be deceptive, they warn; you never achieve the same smooth curves and lines on a computer simply because pixels are so blocky. "I only ever use paper when messing around — for throwing paper darts at Jeff and Jim," Corbett says.

What a great idea for a game! Art Wars: three men launching and dodging a

storm of deadly paper darts. The gameplay will be simple, and since Psygnosis will publish it, the graphics will be spectacular. ■

None of the artists used a computer for drawing before joining Psygnosis.

Richard Monteiro is a freelance computer journalist in England. He has previously edited ST Format magazine and now writes for numerous entertainment and home-computer magazines.

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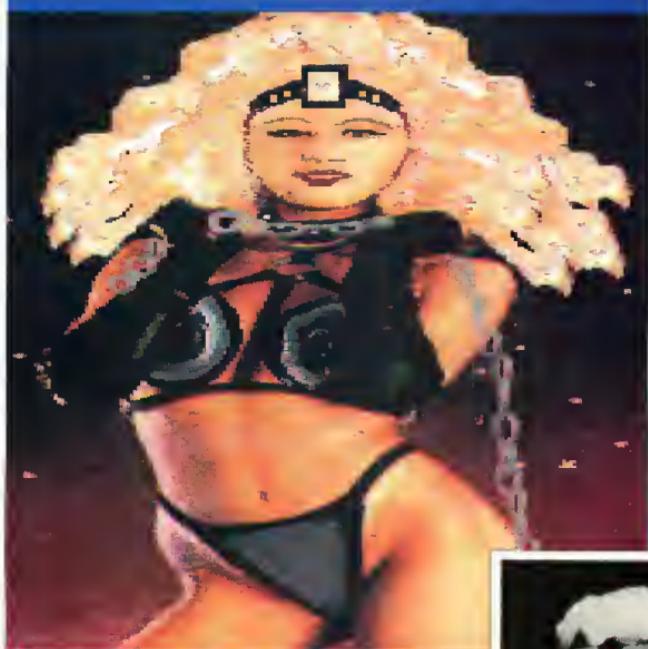
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Women Won't Spend Bucks Until Game Makers End Sexism

displeasure known by spending their money elsewhere.

While no one has any hard and fast demographic information about game players, it's generally accepted within the industry that the vast majority are men. But is this a case of the consumer defining the market or the market defining the consumer? Consider these examples from START's software library.

Brad Stallion, star of *Planet of Lust*, *Bride of the Robot* and *Sex Vixens* from Space, pilots the Big Thruster, a spaceship whose coincidental resemblance to male genitalia stretches the laws of probability. The women Brad meets during his adventures bear names like Princess



Amy H. Johnson

Orgasma, Miss Galaxy and the High Priestess of Desire, names which do not suggest that their most outstanding feature lies between their ears.

Strip Poker makes no bones about what features you should be paying attention to; the only purpose of the game is to uncover those features by getting Melissa or Suzi to shed their

clothes. Granted, Artworx sells supplemental game disks of male strippers, but that only proves that gender is no barrier to exploitation.

In *Technocop*, women sprawl across chairs, bodies ripped, legs splayed. They add nothing to gameplay or storyline; they serve the same purpose as the rest of the graphics — wallpaper.

Faced with these sexist characterizations, is it any wonder women avoid games aimed directly at the male market?

Some games — *TV Sports: Football*, *Rambo III*, *Hostage Rescue Mission* — do not include women for even visual titillation. The hero in *Pirates* is automatically male, even though Anne Bonny terrorized the West Indies in the 1710s.

Sometimes the main character's gender doesn't matter, like in *Weird Dreams* (a sleeper) and *Zak McKracken and the Alien Mindbenders* (a reporter), but game designers opt for men. When they do create female characters, they are likely to use a "Save me!" scenario, like those in *Twilight's Ransom*, *Transylvania*, and *Sinbad and the Throne of the Falcon*, in which the woman exists as the excuse for the hero's quest. Women do not play these games because they lack appealing role models — women who are active, intelligent and effective.

You find those role models in *Sierra On-Line* games like *King's Quest IV: The Perils of Rosella* and *The Colonel's Bequest*. Sierra co-founder Roberta Williams (yes, a woman) wrote the stories.

With a little forethought, it's not hard to overcome the male-hero stereotype. Infocom forces players to designate their sex before beginning the game. In *Leather Goddesses of*

Phobos you walk through a bathroom door; in *Bureaucracy* you, what else!, fill out a form. START's previous programs editor, Heidi Brumbaugh, once required an author to provide a gender choice before she would publish his game. Many role-playing games include both male and female adventurers.

But simply changing Rambo to Rambette won't attract women to entertainment software. Manufacturers also need to design games that appeal to women. In a story in the June 1989 issue of *Marketing Computers*, Patricia Cignarella writes,

"According to a survey conducted at Northwestern University under the supervision of (Professor Ron) Kaatz, just under half the women surveyed had not played a video or computer game in the last two years. However, the vast majority said they would play if a game existed that interested them. When asked to comment on what kind of games would appeal to them, the most popular response was games involving simulations of social situations.

"The second most popular suggestion was sports games, such as volleyball and scuba diving, crew, bike racing and tennis. Third were games about fashion design and shopping. A close fourth was mystery/adventure games. The big losers: fighter pilot simulations, space battles and exercise games."

In 1989, total sales of *Atari ST* entertainment software plunged by 12.6 percent, according to the Software Publishers Association. *Sierra On-Line*'s John Williams reports that 1989 revenues from *Atari* products rose 6 percent. Williams also says 17 percent of *Sierra*'s customers are female, 22 percent in the case of *Rosella*. Think about that. ■

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Call Call Call !!!

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Call Call Call !!!

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CHAOS STRIKES BACK

Reviewed by Heidi Brumbaugh

AT A GLANCE

Game: Chaos Strikes Back

Company: FTL Games
6160 Lusk Blvd., Ste. C206
San Diego, CA 92121
619/453-5711

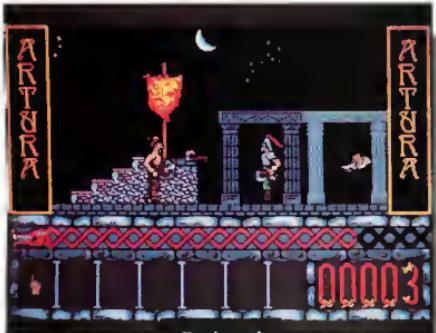
Price: \$39.95

Summary: A sequel that surpasses expectation.

You can often tell how successful software will be by how loud people clamor for it while it's under development. In the case of *Chaos Strikes Back*, FTI's sequel to its best-selling *Dungeon Master*, the game has been due out "in two weeks" for over a year and a half. Rumors of release dates, plot scenarios and playability have fanned bulletin boards for months. And *Dungeon Master* diehards have been far from patient.

When the product was finally released last December, word spread like wildfire. Within days scores of Dungeon Master champions had resurrected and returned to the dungeon in search of treasure, adventure and glory. Battles were

ARTURA



*Reviewed
on page 45*

CLUE MASTER DETECTIVE



*Reviewed
on page 46*

fought, riddles were solved and maps were uploaded. The consensus? Practice your spells, sharpen your swords and prepare your characters for their greatest challenge ever. Chaos Strikes Back is not for the weak of heart.

The program's packaging claims that Dungeon Master is required to run the program. This is not strictly true; you do not need your original Dungeon Master disk to play the game. However, Chaos Strikes Back is impossible to play if you don't know how to play Dungeon Master. Not only is there nothing in the manual telling you how to control your characters and move around, but to survive in Chaos Strikes Back you have to have gotten far enough in Dungeon Master to learn how to cast important spells and have enough experience fighting monsters to know what tactics to use.

The premise of Chaos Strikes Back is that the evil Lord Chaos anticipated his demise and prepared a secret dungeon for his return. He hid four pieces of the dangerous ore Corbum deep in this new dungeon, and to preserve order and restore harmony to the world your champions must find the Corbum and destroy it in the

CHAOS

Just when you thought you were safe, Lord Chaos is back and madder than ever in FTL's thrilling sequel to Dungeon Master, Chaos Strikes Back.



Forge of Fulya. There are four mazes to conquer in Chaos Strikes Back with four ways to conquer each of them. The way you choose to conquer a maze depends on your choice of character type. Those choices are warrior, ninja, wizard and priest.

Despite the new story line, Chaos Strikes Back plays much the same as Dungeon Master. You must negotiate passages, fight monsters, solve riddles and collect weapons, food and armor to survive. The program uses the same interface as its predecessor. In fact, the main difference between the two programs is one of

degree. Simply put, the easiest levels in Chaos Strikes Back are at least as difficult as the hardest levels in Dungeon Master.

Chaos Strikes Back comes with a utility disk that lets you load the characters from a saved Dungeon Master game and use them to create a new Chaos game. If you do this, your characters must be fairly far advanced; the manual recommends that they should have been far enough inside the dungeon to have seen Lord Chaos. If it's been a while since you last played, you might want to spend some time playing Dungeon Master to get back into the

FIENDISH FREDDY



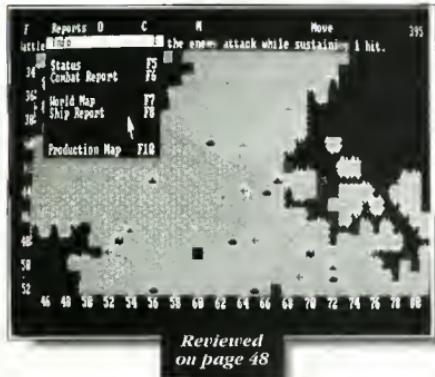
Reviewed on page 70

HANG ON



Reviewed on page 71

EMPIRE



*Reviewed
on page 48*

swing of the game. Oh, and have your spell list out and ready when you start up Chaos Strikes Back.

If you don't have a saved Dungeon Master game, you can create a new company of champions from the Chaos Strikes Back prison. Many of these champions are of new species and they all have fairly highly advanced skill levels.

Regardless of how you get your characters, they will begin in the new dungeon without any equipment or supplies.

RED STORM RISING



*Reviewed
on page 49*

lyzes your position in the dungeon and then offers a menu of clues for you to examine. The Hint Oracle rarely tells the solution to a puzzle outright; more often it gives a few clues to help you figure the puzzle out for yourself. This is a welcome addition to gameplay.

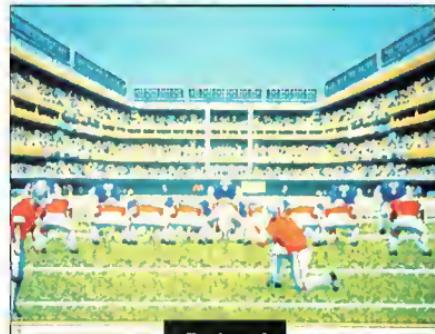
START's editors have intermittently discussed using a rating system for game reviews. (*Editor's Note: Resolved. See the catchy "At a Glance" summary before reviews.*) Such a system could use Siskell &

ROBOCOP



*Reviewed
on page 72*

TV SPORTS FOOTBALL



*Reviewed
on page 73*

Ebert-style "thumbs up" or "thumbs down"; a small graphic logo some movie reviews use which picture a little man in a chair sleeping, applauding or cheering; or a standard one- to four-star rating. So to give you an idea of what to expect from FTL's long-awaited sequel to Dungeon Master, I offer this objective assessment of Chaos Strikes Back: two thumbs — being bitten off. A little man — fleeing for his life. Four stars — all shooting fireballs at you from different directions. Heidi says, check it out.

ARTURA

Reviewed by Greg Perez

AT A GLANCE

| | |
|----------|-----------------------------|
| Game: | Artura |
| Company: | Arcadia |
| | 18001 Cowan St., Ste. A & B |
| | Irvine, CA 92714 |
| | 714/833-8710 |
| Price: | \$14.99 |
| Summary: | Hack-(yawn)-and-slash. |

Artura from Arcadia Software loosely follows the original legend of King Arthur of Camelot. In an age when only the strongest survived and the strong usually carried big weapons, you take on the role of Artura, son of the Pendragon. You battle your way through a huge underground maze that leads (hopefully) to the beautiful Nimue, daughter of Merdyn the Mage.

Basically, Artura is a hack-and-slash game. You control your left and right movements with a joystick and sling your axe with the fire button. Most of your confrontations are either with barbarians who do nothing else but stand in your way to deplete your energy, or with rats and spiders that drain you as well by nibbling on you. Once in a while, you come up against a wizard, who throws lightning or fireballs to hold you off.

There isn't much to this game, but you do have more challenges than chopping up barbarians and giant rats. Hidden somewhere along the way are the pieces to the sacred Runestones. When they're used separately or in combinations, they give you the power to use the wheel of Cerriddwen, which helps you on your quest to rescue Nimue.

Included in the package is a poster-size map that's supposed to help you through the mazes, but it ends up being more confusing than it's worth. Artura is a horizontal

platform game; the map provides you with an aerial view of the maze. But it's simply filled with weird symbols and a gaggle of unknown arrows pointing in all different directions. And there was no legend.

Artura could be better in many ways. It's not too exciting in the way of play and it resembles at least a dozen other platform-style games on the market. But, the challenge of finding the Runestone did add some depth and gave me incentive to dig deeper. ►

STRATEGY



This is for the chess masters, mystery buffs and the generally intuitive amongst us. It requires a highly developed intelligence, an acute attention to detail and a little paranoia. (Aspirin is optional but recommended.)

AT A GLANCE

| | |
|-----------------|---|
| Game: | Clue Master Detective |
| Company: | Mastertronic |
| | 18001 Cowan St., Ste. A & 8 |
| | Irvine, CA 92714 |
| | 714/833-8710 |
| Price: | \$39.99 |
| Summary: | Clue is fun but more challenging as a board game. |

CLUE MASTER DETECTIVE

Reviewed by Dr. John Watson
START Programs Editor

In glancing over the notes I have been honored to gather during the course of my long relationship with Sherlock Holmes, I am struck by those pertaining to the murderous affair at Boddy Manor. Not exactly a case, in that the corpse was fictional, this adventure was a test of the deductive powers of my intimate friend and associate.

Holmes had been contacted the previous week by a gentleman with the unusual name of Virgin Mastertronic, who claimed to have made significant improvements to Charles Babbage's calculating machine, which he called a computer. In order to publicize his efforts, he proposed to test his invention's logical skills against those of the world's only consulting detective, whose superior deductive powers are universally acknowledged as unequalled.

All this was quite unknown to me when I knocked up Holmes late one morning. Much to my surprise, as I know from my time spent lodging with him that he is by habit a late riser, he answered the door at 221B Baker Street himself, clad not in his purple dressing gown, but in an overcoat, as it was his intention to go out.

"Watson, if you can spare the afternoon, you will find a most

intriguing story to add to your collection," he said, shutting the door behind him. With such a promise I could do nothing but accompany my friend.

"I shall no doubt win this contest," Holmes said, "having spent years honing my faculties of observation and reasoning."

At Boddy Manor, we met several other detectives who had been invited to participate. Mr. Mastertronic was obviously eager to promote his Babbage machine, or computer. He introduced us to the Parker brothers, who actually devised the test Holmes was about to undertake. It was a test involving a crime.

"Mr. Boddy has been murdered," they said, referring to the absent owner of the grand house in which we stood. "You are to find his killer, the instrument of death and the room in which he died."

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"There are 10 suspects and eight deadly weapons. Boddy Manor has 12 rooms. These are represented by cards. One card from each category has been removed. Your task is to discover which cards they are.

"In the interest of fairness, at least three participants must be involved in this test, and we will run several, with different combinations of players."

"This should be elementary, my dear Watson," Holmes said to me. "There are only 960 possible solutions."

"How do you know that," I gasped, stunned by Holmes' razor intelligence.

"Multiplication, my friend. Elementary multiplication."

Once Holmes had pointed it out to me, it was easy to see.

The Parker brothers continued. "Each participant will assume the role of one of the 10 suspects. He,

she or it will receive a portion of the cards. By determining which cards your opponents have, you can, by process of elimination, deduce the murderer, room and weapon.

"You play by walking through

you feel you have a solution, you may make an accusation. If you are incorrect, you are eliminated from the game. Any questions?"

There were none, as we were all most eager to begin the contest. Mr.

Mr. Boddy has been murdered. You are to find his killer, the instrument of death and the room in which he died.

Boddy Manor. Each time you enter a room, you may suggest a possible murder scenario. If another player holds a card which disproves your suggestion, he or she will show it to you.

"Additionally, at certain marked places within Boddy Manor you may peek at an opponent's hand. When

Mastertronic switched on his computer. In the window at the front of his machine, we saw a picture of a possible murder scenario, which Holmes watched in fascination as it was a noisy and colorful display involving the unfortunate Mr. Boddy, a wingback chair and a blazing fire. Then the pictures of the suspects

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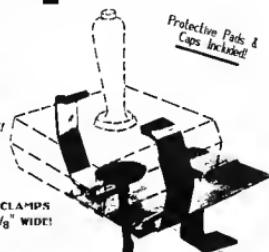
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appeared. Holmes dutifully chose one since the first test was to pit the computer against the great detective.

After announcing that the crime was committed by Monsieur Brunette in the Billiard Room with the Poison, Holmes said, "I find it more enjoyable to sit in the conservatory and listen to the birds while the machine takes its turn. Then I simply examine the record of its guesses and incorporate the information into what I have gathered through my own keen observations."

"Perhaps a test that includes your fellow detectives will present more of a challenge," the Parker brothers suggested.

"Perhaps," Holmes said, "but I have yet to take the measure of the machine. This time I will let the computer win."

Alas, Mr. Mastertronic's invention was no match for Holmes' remarkable mental qualities. My friend had whispered the solution to me a full two turns before the machine deduced the murderer.

The test with several other humans was more to Holmes' liking. As he has proven in his bouts with the redoubtable Inspector Lestrade of Scotland Yard, matching wits with other members of the detective profession is an activity whose pleasure is eclipsed only by matching wits with perpetrators of evil.

The human detectives did encounter one problem, however. Since the computer was responsible for the revelation of clues, the detectives waiting their turn were forced to avoid the machine's window lest they learn information which they ought not. Impatient with this awkward method, Holmes paced the floor, coat tails flapping against his long legs as he toured the room in swift strides.

"So, Mr. Holmes, what do you think of our experiment?" the Parker brothers asked him as we begged our leave.

"An absorbing enough amusement for amateurs," he said, "but finely honed intellects like mine prefer a real chase that pits one human mind against another."

"Come, Watson, come," Holmes cried. "The game is afoot."

But I regret to say that for once, Holmes was wrong. The game is Clue Master Detective.

EMPIRE

Reviewed by Heidi Brumbaugh

AT A GLANCE

| | |
|-----------------|---|
| Game: | Empire |
| Company: | Interstel Corp., Dist. by Electronic Arts 1820 Gateway Dr. San Mateo, CA 94404 415/571-7171 |
| Price: | \$49.95 |
| Summary: | An excellent battle of the minds. |

Empire, by Interstel Software, is an elaborate strategy game in which you try to spread your superior military forces over the world and thereby conquer it. As many as three players — in any combination of human and computer opponents — can participate in this quest for imperial power. The program runs in medium or high resolution and has a keyword

productivity of their cities. After you ignite production in your own city, you can begin building transports to move troops to neighboring land masses. Destroyers and submarines map out nearby waters and guard ports from other players. When you've captured cities on neighboring continents, you're ready to erect a stronger force including cruisers, battleships and aircraft carriers.

Each element in your force has different strengths and weaknesses. For example, only armies can capture cities, so they are necessary to winning the game. However, they move slowly, only one square at a time, and are limited to land exploration (unless you move them in troop transports). Fighters, on the other hand, are ideal for reconnaissance because they move quickly — five squares at a time — and can cover land or sea. However, they must remain close to one of your cities as they have limited fuel and can crash if they stay out too long. Similarly, battleships are much harder to sink than destroyers, but destroyers take less time to produce and move faster. Empire forces you to strategically combine your resources in the most effective way possible for the current game's map and your opponents.

The Empire map is a grid made up of squares; each square is land, sea

Empire forces you to strategically combine your resources in the most effective way possible.

copy protection scheme.

An Empire world is comprised of continents, islands and seas. You begin with a continent of your own and one city. Basically, you want to strengthen your forces, invade foreign continents and interrupt the

or shore. The map of the board is revealed as you play; you only learn the layout of adjoining squares by moving pieces across them. Each player can likewise see only his or her section of the board. The layout of opponents' territories and posi-

tioning are secret until they are encountered. For this reason, if more than one person plays on the same computer other players must look away from the screen when it's not their turn. The program handles this pretty well; at the end of each turn the screen goes blank except for a message instructing the next player to "report to the command post." Alternately, players can use the "play by mail" option to save the game on disk after each turn and mail it (electronically or otherwise) to the next player. Empire does not support interactive play via modem.

Since the size of the board is tremendous, a game can last several days, with fleets growing to contain hundreds of armies, fighters and ships. Fortunately, the program's excellent interface makes managing your forces practical. The main screen only lets you see a small portion of the world at a time, but there's an option to view the entire map so you can get a better perspective on your forces. You can also call up status reports showing the size and production status of your fleet. A production map shows at a glance the production distribution of your territories. Empire also offers a

variety of commands to control your forces. You can set flight paths for fighters, command forces to move to a specific location or in a specific direction, set ships to automatically

this game, everyone begins with the same resources. Winning depends upon tactical skills, clear thinking and organization — not to mention knowing thy enemy.

For even more variety, Empire includes a map editor so you can create your own worlds.

patrol waters and put armies on sentry watches.

At the beginning of each game, all players are randomly assigned positions on the map so each game is different, even if you've used the same map before. For even more variety, Empire includes a map editor so you can create your own worlds. Finally, you can increase or decrease any player's production or combat efficiency for more challenging gameplay. This is particularly useful because the computer is not very smart about employing strategy; increasing its efficiency usually makes up for it.

I recommend Empire to anyone who prefers strategy games to arcade shoot-em-ups or games of chance. In

RED STORM RISING

Reviewed by Wolf Griffey

AT A GLANCE

| | |
|----------|---|
| Game: | Red Storm Rising |
| Company: | MicroProse Simulation Software |
| | 180 Lakefront Drive |
| | Hunt Valley, MD 21030 |
| | 301/771-1151 |
| Price: | \$54.95 |
| Summary: | The thrill of the hunt has never been better. |

While Tom Clancy (author of the novel, *Red Storm Rising*) and MicroProse were conspiring the final touches on the combat simulation of the same title, the "bad guys,"

continued on page 69

[Games](#) • [Games](#)

TABLE TENNIS



Reviewed
on page 75

RICK DAVIS SOCCER



Reviewed
on page 76

BUGS

BY GREG "MADDODG" KNAUSS

Our hero has been captured by mad scientists for use in their evil experiments. Will he survive their terrible tests? Is this the end the dynamic reptile? Holy bugs, Bat — ub — Snakeman!

AT A GLANCE

| | | | | | | | | | | | | | |
|---------------|---|----------|------------|----------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| Program: | Bugs! | | | | | | | | | | | | |
| Type: | Maze game | | | | | | | | | | | | |
| Requirements: | 512K, low rez, joystick | | | | | | | | | | | | |
| Archive: | BUGSBUGS.PRG | | | | | | | | | | | | |
| Files: | <table><tr><td>BUGS.LST</td><td>BUGS_SET.5</td></tr><tr><td>BUGS.PRG</td><td>BUGS_SET.6</td></tr><tr><td>BUGS_SET.1</td><td>BUGS_SET.7</td></tr><tr><td>BUGS_SET.2</td><td>BUGS_SET.8</td></tr><tr><td>BUGS_SET.3</td><td>BUGS_SET.9</td></tr><tr><td>BUGS_SET.4</td><td></td></tr></table> | BUGS.LST | BUGS_SET.5 | BUGS.PRG | BUGS_SET.6 | BUGS_SET.1 | BUGS_SET.7 | BUGS_SET.2 | BUGS_SET.8 | BUGS_SET.3 | BUGS_SET.9 | BUGS_SET.4 | |
| BUGS.LST | BUGS_SET.5 | | | | | | | | | | | | |
| BUGS.PRG | BUGS_SET.6 | | | | | | | | | | | | |
| BUGS_SET.1 | BUGS_SET.7 | | | | | | | | | | | | |
| BUGS_SET.2 | BUGS_SET.8 | | | | | | | | | | | | |
| BUGS_SET.3 | BUGS_SET.9 | | | | | | | | | | | | |
| BUGS_SET.4 | | | | | | | | | | | | | |
| Language: | GFA BASIC 3.0 | | | | | | | | | | | | |

"You have the test subject, Wilson?"

"Yes. His name's Edwin."

You hear your name and look around. There seems to be something that you would call "wind" — if you had a brain bigger than a walnut — blowing gently out of the northwest, and the big warm sphere above is making you pleasantly sluggish. You decide that you're not that interested in your name anyway and stop looking around.

"We're not going through this again, are we, Wilson? It's an animal.

An experiment. An *it*."

Suddenly, you're lifted into air. Your first impulse is to stick out your tongue and this is exactly what you do. But since experience has taught you this almost never helps the situation, you pull it back in.

All those "scientific" experiments you've endured have mutated your DNA. You're still Edwin the snake, but now you're just more, well, flexible. Your body stretches and contracts like an accordion. And since scientists do as scientists will, they have one last test for you, to clean up all the underground radioactive leakage that has spawned mutant bugs.

You're taken outside and dropped on the grass near a small hole. Acting on instinct, you wrap the end of your tail around the nearby wooden arch and stick your head into the hole. You can't explain why you do it; it just feels right.

"Ha. See? He's smart. He knew exactly what to do."

"Any bioengineer worth his salt can program innate responses into a



snake. Let's just see what happens."

Another idea tickles your cerebellum. You plunge into the hole. When your eyes adjust to the darkness, you head for the small gleam ahead of you. You think it might be a good idea to eat it. You do, and notice another one farther along. Instinctively you elongate your body and head toward it.

Suddenly, the gleaming thing in front of you starts to growl. Even if your brain is smaller than a walnut, you know this is not a friendly sign. You back up and try another passage.

Poised and Ready

To play Bugs!, double-click on the archive file BUGSBUGS.PRG and choose Extract when the dialog box appears. Select a destination disk and the files will be un-ARCDed directly onto that disk. To start the program, double-click on BUGS.PRG. The game runs in low resolution and requires a joystick.

At the title screen, press the joystick's fire button to start the game using the first maze. If there aren't any mazes to run, you'll go directly into the Editor. Bugs! comes with nine mazes, which are named BUGS_SET.1 through BUGS_SET.9.

If you want to choose the starting maze, press [Spacebar]. A box appears in the center of the screen. Use the right and left arrow keys to cycle through the available mazes, then press [Return] when the one you want is shown in the box. [Escape] exits Bugs!. [Return] takes you to the Bugs! Editor.

Down the Hatch

Underground, there is a maze of tunnels littered with large and small radioactive pellets, and blue and red bugs. Your job is to eat all the pellets and avoid being killed by the bugs.

You eat something by running over it with your head. You score points if you eat a blue bug, but a red bug is so radioactive that it's lethal. (Why else do you think it's glowing?)

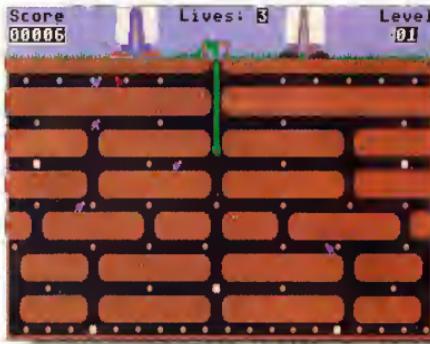
Clean up the radioactive tunnels, avoid the deadly bugs and live to run another maze.

Conversely, nothing happens if a red bug runs over your body, but a blue bug, with its toxic skin, will kill you if it runs into you.

Lucky for you, eating a large pellet causes a radioactive explosion which temporarily stuns the blue bugs but does not affect you.

For every pellet you eat (big or small) you get points equal to the

continued on page 78



When editing a maze, use the mouse to select and lay down tiles.



CROSS CRA EAT O R



Cheryl Rubin

If you've ever marveled at those mental whizzes who actually finish the New York Times crossword puzzle — in PEN — then pause for a moment and consider how tough it must be to design them. But help is here. Using Crossword Creator, you'll whip up those brain teasers with ease.

WORD



Now Making a Crossword Puzzle is Easier than Solving One

BY JOHN L. HUTCHINSON

AT A GLANCE

| | |
|---------------|------------------------------|
| Program: | Crossword Creator |
| Type: | Crossword-puzzle generator |
| Requirements: | 512K, high or medium rez |
| Archfile: | CROSSWRD.PRG |
| Files: | CWC_COLR.PRG CWC_MONO.PRG |
| Language: | GFA BASIC 3.0 |

When Arthur Wynne published the first modern crossword puzzle in the *New York World* on December 13, 1913, little did he know that it would quickly become a fad in the United States and soon spread to other countries as well. By the early 1920s, newly formed crossword clubs were sponsoring contests and holding championships, which increased the crossword puzzle's popularity.

Solving crosswords has long since been described as an "enjoyable exercise in frustration" for millions of puzzle addicts worldwide. Creating a puzzle, however, tends to redefine the term on a nightmarish scale, calling for a tedious pencil-and-paper drill with dubious results, at best. This is why I developed Crossword Creator, a full-featured crossword generator that helps you easily create and print your own crossword puzzles. The program includes due editing and an optional puzzle solution.

Getting Started

To run Crossword Creator, double-click on the archive file CROSSWRD.PRG and choose Extract when the dialog box appears. Select a destination disk and the files will be un-ARCed directly onto that disk. To start the program, double-click on either CWC_MONO.PRG or CWC_COLR.PRG, depending on the type of monitor you have. After a few moments, the title screen will appear and Crossword Creator is ready to use.

Most of the Crossword Creator screen is taken up by the grid where the interlocking words that make up your puzzle will be displayed. Upon loading, the program defaults to the maximum allowable size grid for your particular monitor (24 across x 17 down for color; 30 across x 20 down for monochrome).

Along the left-hand side and bottom of the screen are several option buttons, some of which appear faded to indicate that they are not yet usable. For example, when there is no puzzle in memory, the only options available are CREATE, LOAD and QUIT. All options may be selected by pointing and clicking with the left mouse button or by pressing the key corresponding to the highlighted letter of the desired option.

The functions of the main screen's option buttons are described in the sidebar.

How to Create a Puzzle from a Word List

You'll find the Word List method to be the fastest and easiest way to create a puzzle in Crossword Creator. Word lists may be created via the CREATE PUZZLE function, or you may use any word processor capable of saving a file in ASCII. If you use a word processor, put only one word on a line and end each line with a carriage return. Crossword Creator accepts a maximum of 99 words of length 15 letters or less, alphabet characters only. Save the list to disk as an ASCII text file using a filename extension .WRD.

For maximum speed, Crossword Creator will not display the puzzle on screen until it has exhausted the word list. Very large word lists may take a few minutes, so be patient and wait for the bell that sounds when the puzzle has been completed. You may halt the process at any time by pressing [Undo]. Once the puzzle has been completed, you will be advised of what percentage of words from the original word list were successfully added to the puzzle. If you wish, you then may ask Crossword Creator to try the same list again. The program will randomize the words in an attempt to fit a greater proportion.

Hints and Tips

The MAKE TEMPLATE option lets you create specific crossword puzzle patterns. You may add or delete blacked-out squares at any time, but ►

remember that templates usually restrict the number of words that can be successfully added. Also, when the PRINT PUZZLE option is selected, all unused rows and columns in your puzzle will be erased to make it more compact. You can defeat this compaction by forming a border of blacked-out squares around the perimeter of your puzzle.

Many crossword puzzles are designed so that the upper left-hand corner contains an across word and a down word. While Crossword Creator optimizes its search pattern to fit an entered word as quickly as possible, this may not result in the specific word placement that you want. To remedy this, use the MANUAL mode of the ADD WORD function to place an across word and down word at the corner(s) as desired. Then return to AUTO mode to continue entering words the easy way.

If you don't care for the positioning of a word done in the AUTO mode, use the DELETE WORD function to remove it, then add it back in at the preferred

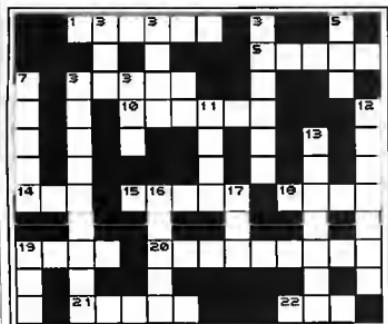
location using the MANUAL mode.

You will be alerted if a manually positioned word causes a conflict with an existing word. Such conflicts usually arise from the accidental formation of nonsense words when you place a new word adjacent to an existing one. You may KEEP or DELETE the word just added but if you keep it, be sure to correct any nonsense words by manually adding new words over them.

Although you won't have to worry about conflicts in the AUTO mode, judicious use of the MANUAL mode will certainly make your puzzles more challenging and professional in their appearance. ■

John L. Hutchinson is a major in the U.S. Army and is currently assigned to the Australian Army War Game Centre in Sydney. He is the author of Naval Battle (START Special Issue Number Four) and a number of GFA BASIC tutorials that appeared in previous issues of START.

Crossword Creator Sample Puzzle



ACROSS

1. Nickname of Bugs! author
6. Uncompress; pre-playing preparation
8. #1 Guide to Atari ST
10. Pozhitinov's big hit
12. Psygnosis' native land
14. Programs Editor
15. June's theme
18. The contents of Dialog Box
19. See 20 across
20. Atari's new president
21. Mutant snake's name
22. Crossword Creator's creator

DOWN

2. What Psygnosis illustrators studied
3. Wardle's _____ cube
4. Pozhitinov's name
5. Editor's initials
7. Junior Editor
8. Location of Atari headquarters
9. What Edwin did to the pellets
11. Review category; _____ - playing games
12. Psygnosis' native land
13. Sam or Jack
16. Computer manufacturer
17. Machines used by START staff
19. Computer which the ST can emulate

Solution on page 56

KEYBOARD EQUIVALENTS

| Button | Key |
|---------------|-----------|
| ADD WORD | A |
| CREATE PUZZLE | C |
| DELETE WORD | D |
| EDIT CLUES | E |
| LOAD PUZZLE | L |
| MAKE TEMPLATE | M |
| PRINT PUZZLE | P |
| QUIT | Q or Undo |
| SAVE PUZZLE | S |
| UNUSED | N |
| USED | U |
| ? | ? or Help |

CREATE PUZZLE

Creates a new puzzle or word list. A dialog box appears giving you three choices: PUZZLE, WRD LIST and CANCEL.

Click on WRD LIST to create a word list. Words must be entered one at a time. Each word may contain up to 15 characters and must consist of letters only — no numerals or punctuation. Press [Return] when you've finished your list, then save it by selecting a filename with the extension .WRD.

When you choose PUZZLE, a dialog box asks you to enter your puzzle's parameters. These parameters include the number of letters across and down, and the total number of words (up to 99). Click on the arrows beside the numbers to increase or decrease them.

The puzzle-parameters dialog box also asks you to choose your WORD ENTRY METHOD. Choose KEYBOARD to enter words from the keyboard, one at a time. Choose WORD LIST to load a previously prepared list of words.

Below that, you're asked to choose your preferred WORD POSITIONING METHOD. Choose AUTOMATIC to let the program decide where to place each word.

CROSSWORD CREATOR, BUTTON BY BUTTON

Click on **MANUAL** to position each word yourself.

Finally, you must decide whether or not you want Crossword Creator to automatically attempt to fit words from the unused list.

SAVE PUZZLE

Saves your masterpiece to disk. All puzzle data files must have the filename extension .PUZ. Existing puzzles with the same filename will be renamed *.BAK. In addition, a word-list file of the same filename but with a .WRD extension will automatically be saved.

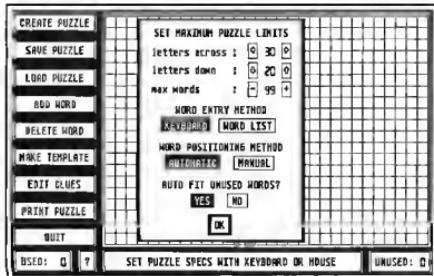
LOAD PUZZLE

Lets you load a previously saved puzzle file. Be sure to save any puzzle currently in memory, as loading another puzzle will replace it.

ADD WORD

A dialog box will appear asking you to choose either **AUTO** or **MANUAL**. AUTO is the default; the program fits each word in the puzzle automatically. The first word will be positioned as close to the center of the puzzle as possible. Subsequent words will be interconnected with existing words or placed on the unused words list for later use.

At the main menu, click on **CREATE PUZZLE** to call up this dialog box. Here you may set your desired puzzle parameters.



To enter words manually, click on **MANUAL**. At the **ENTER NEW WORD** prompt, enter any word of up to 15 characters and press [Return]. The word will appear in boldface in the upper left hand corner of the puzzle. Click on the right mouse button to switch it from across to down, then drag your word to the desired location in the puzzle. Press the left mouse button to paste the word. You may then continue to enter new words to the maximum puzzle limit of 99. Note that you cannot connect to an existing word unless the letters of both words match up exactly. Crossword Creator will also alert you if you try to place the word in a position where it creates a conflict with existing words.

To exit to the main menu, press [Return] at the **ENTER NEW WORD** prompt.

DELETE WORD

This option will change the mouse cursor to a skull and crossbones and display a list of any unused words over the option buttons. Position this "deadly" cursor over the first letter of any word in the puzzle or the unused-words list and click the left mouse button to delete that word.

To cancel the delete operation, click the right mouse button or press any key. Use this option with care

because once a word has been deleted, it's gone for good!

MAKE TEMPLATE

The mouse cursor changes to a crosshair with which you can "paint" a pattern of black squares on the puzzle grid. No words will be positioned on black squares. Click the left mouse button to paint or erase each square, and the right button to exit this function.

MAKE TEMPLATE gives you a choice of symmetry: **NONE**, **2-WAY** and **4-WAY**. **NONE** paints squares one at a time. **2-WAY** paints a square and its diagonal counterpart. **4-WAY** paints a square and its counterparts in the other three corners.

EDIT CLUES

Lets you to enter or edit text clues for each word currently used in the puzzle. The "across" words are presented first, followed by the "down" words. Each clue is limited to a single line of up to 35 characters. When editing previously entered clues, simply press [Return] to accept a clue, or press [Delete] to erase a clue prior to typing in a new one.

PRINT PUZZLE

Select this option to call up a sub-menu of print options.

Click on **PUZZLE ONLY** or press [P] to print an unsolved puzzle. Click on **CLUES ONLY** or press [C] to print its clues. Select **SOLUTION ONLY** or press [S] to print its solution. **WORD LIST** or [W] prints a list of used and unused puzzle words. Click on **PRINT ALL** or press [A] to print the puzzle, clues, solution and word list in that order. Select **CANCEL** or press [Undo] to return to the main menu.

Prior to printing, Crossword

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Features: The Atari Mega 4; Zoomracks; The ST in Hollywood; How Not to Shop at a Computer Store.

On Disk: STARTKey; ST Writer Meets the Mouse.

Reviewed: Macintosh and PC Emulators; Doc-Easy and STAccounts; 1st Word Plus; Superbase Personal.

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Features: Drawing and Painting Programs Overview; Desktop Video; How to Set Up Your own MIDI Studio; Rock 'n' Roll with Atari; Shopping List of Music Hardware.

On Disk: The Cartoonist; MIDI View; Ear Trainer.

Reviewed: Synth-Droid and Xsyn Patch Editors; Music Studio and Music Construction Set.

SPRING 88

Features: Earthquake; Upgrading Your ST; Dave Mason Interview.

On Disk: Home Budgeting; Exploring Prolog; 1987 Tax Template; Battle for the Throne.

Reviewed: Personal Finance Programs; Desk Accessories Compared.

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On Disk: CardStack Database; START Selector; Play the Market.

Reviewed: WordPerfect; F15 Strike Eagle.

SUMMER 88

Features: Three Years with the ST; Mick Fleetwood Interview.

On Disk: Planning Traveler; Writing Your Own Help Files; Fractal Landscape Generator; Klondike Solitaire.

Reviewed: Microsoft Write.

SPECIAL ISSUE #4

Features: Games & Entertainment

On Disk: Naval Battle; World Discovery; Guitar Simulator; Byte Mechanic; ReSTART.

Reviewed: Dungeon Master; Chessbase; Four SonicFlight Patch Editors; Quantum Paint 1.2.

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JANUARY 89

Features: Editor's Choice.
On Disk: GFA BASIC 2.0; Spanish Mastery, START Key Revisited; Slither.

Reviewed: GFA BASIC 3.0; Creator and Notator.

FEBRUARY 89

Features: Thanks for all the Fish; ST: 1999.
On Disk: Dah-Ditter; Moon Calendar; Kamikaze Chess; Killer Chess; VCR Organizer.
Reviewed: Atari's Planetary; Robtek's Skyplot; Mirage Sample Editor's.

MARCH 89

Features: Three Artists Who Use the ST; Software Rental.
On Disk: Seurat Draw and Paint Program; Assembled Saucers; ST Coloring Book.
Reviewed: Graphics and Animation Programs Compared; Digram's Big Band; Overview of Six CAD Programs.

APRIL 89

Features: Jimmy Holtz's MIDI Magic; Dr. T Interview; The New TOS ROM Error Codes.
On Disk: ST Writer Elite 3.0; Poker Solitaire; RAM Baby.
Reviewed: Utilities; R/C Aerohopper; MIDI Draw.

MAY 89

Features: CompuServe's Sports Forum; Atari Goes to College.
On Disk: Space Wars 2400; GFA Object; 1988 Tax Template; SIFT (START's Instant File Translator Reviewed: Buyer's Guide to Telecommunications Programs; Calamus.

JUNE 89

Features: Do Anything Business Computer; Arcade Addiction.
On Disk: GFA Vector; Match Quiz St; Screenwriting with WordPerfect; ST Pinocchio; Exploring Spreadsheets; Traveling Mattes.
Reviewed: Juggler II; Switch/Back; Revolver; Graphics Tool from Migraph; MIDI Drummer.

JULY 89

Features: MIDI in the Future Tense; Making MIDI Affordable.
On Disk: Babel; GFA Object; The ST Theremin; START Arcade.
Reviewed: Sound Digitizers; EZ-Score Plus; Pagestream; Turbo ST1.4; Hi Soft BASIC and Hi Soft BASIC Professional.

AUGUST 89

Features: Secrets of a Good User Interface; Tools of the Trade.
On Disk: POGO; File Search; Splines on Splines; Stumbling Blocks.
Reviewed: UltraScript; DevpacST; dMAN V; After-Market Floppy Disk Drives; MIDI Magic

SEPTEMBER 89

Features: Sam Tramiel Interview; Computer Game Violence.
On Disk: Avecta 1: Ebora; The Seven Skulls; Newspeed; Slither Screen Editor; Clinko.
Reviewed: Eight Games; Fleet Street Publisher 3.0; STAC, STOS and TaleSpin; NewScore

OCTOBER 89

Features: STACY and Portfolio Preview.
On Disk: CAD-3D-to-DynaCADD Converter; Schedule Maker; ST Sotguide; WordPerfect Macros; Boingo.
Reviewed: DynaCADD 1.56; Hotwire; NeoDesk 2.0 and VDOS ProQueue; Entry-Level Sequencers; Computer Guide to the Solar System.

NOVEMBER 89

Features: The Transputer Connection; Atari and Perihellion; Donny Osmond Interview; The START Disk's New Look.
On Disk: RezRender; JULIA; Final Approach Controller.

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WORDLE

A Tough and Jumbled Game

BY ERIC SLICK



Scrambled eggs become unscrambled eggs when you play this absorbing search-and-sort word game. Twist your brain left, right, up, down and sideways trying to spot the words hidden within the letters in the Wordle block.

AT A GLANCE

| | |
|---------------|---------------------------------|
| Program: | Wordle |
| Type: | Word game |
| Requirements: | 512K, low rez |
| Archive: | WORDWORD.PRG |
| Files: | READ_ME.2 WORDLE.LST WORDLE.PRG |
| | WORDLE.PIC WORDLE.DAT |
| Language: | QBasic 3.0 |

Wordle is a word-search game similar to the popular board game Boggle. Race against the computer as you try to find as many words as you can within a grid of randomly placed letters. To win, you must find more words than the computer finds within the time limit. The computer learns more words each time it plays, making it a more formidable opponent. Will your skills improve, too?

Getting Started

To play Wordle, double-click on the archive file WORDWORD.PRG and choose Extract when the dialog box appears. Select a destination disk and the files will be UNARCed directly onto that disk. To start the program, double-click on WORDLE.PRG. The game runs in low resolution only.

At the main screen, click on the Start button. The letters are shuffled, the display box reads "Get Ready" and after three seconds, "Go!" The clock starts ticking.

At the Block

To spell a legal word each letter must touch the one before it. They can be connected either horizontally, vertically or diagonally. You cannot use the same letter twice in any one word.

Type the words that you find, using [Backspace] to correct mistakes; press [Return] when you've finished a word. Your words will appear in the white box on the right.

If the mouse is on, you can build words by left-clicking on the letters or holding down the left button and dragging the pointer over them. As you do this, the letters are highlighted. To un-highlight a letter, simply click on it. The right mouse button, or [Spacebar] enters the word.

If you need a breather, the [Escape] key pauses the game. If the mouse is active, you can click on the pause button. You then have three choices: **Start** the game over, **Skip** to scoring and **Continue** playing. Start quits the current game and gives you a new screen. Skip lets you move to the scoring stage without waiting for time to run out. Continue returns you to the game with no time lost. You'll notice, however, that during pause the letters disappear. Sorry, no cheating. The computer can't peek during Pause, so neither can you.

When time runs out, Wordle automatically strips out repeated words, short words (less than three letters), words that are not actually on the board and words found by both you and the computer. Only those words unique to your list and over two letters long will be left. If Wordle does not have your word in its dictionary, it will ask you whether to add it or not. Your words, and the computer's, are then scrolled in a window that appears on the right side of the screen, followed by your scores. You are awarded one point for a three letter word, two points for a four letter word, three for a five letter word and so on.

As you play the game, you will naturally develop a search strategy of your own, but here are some tips to start you off. Begin in a corner of the board and systematically search through all possible word combina-

tions that begin with that letter.

When you run out of possibilities, go on to the next letter and do it again. (Of course, if you suddenly see a word across the crowded board, don't wait to enter it.) Watch for words that can be pluralized (i.e. toy and toys), and for words within words (i.e. enjoy and joy). Proper nouns, contractions, abbreviations, foreign and hyphenated words are illegal. Otherwise, any word found in the dictionary is fair game.

Unscrambling the Big Picture

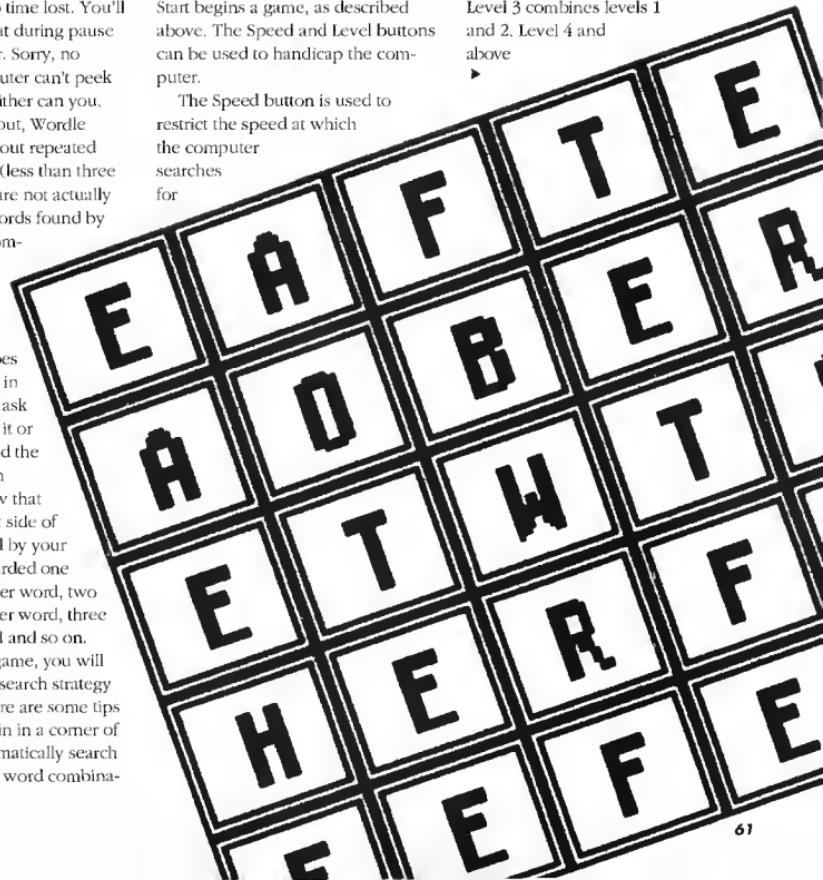
Along with the board of letters on the left side, there are several buttons on the right (**Start**, **Speed**, **Time**, **Level** and **Exit**) which control your game. Start begins a game, as described above. The Speed and Level buttons can be used to handicap the computer.

The Speed button is used to restrict the speed at which the computer searches for

words. The higher the number, the longer it takes the computer to complete a full search of the board. Speed 0 frees the computer to work at full tilt, while speed 9 restricts the computer so much it would be lucky to finish a full search in under nine minutes. This option is most useful when your own time is limited.

The Level button controls the computer's search pattern. Level 1 keeps the computer from thoroughly searching its own dictionary so that it misses some words. Level 2 makes the computer search randomly through the board. This setting may force the computer to give up searching early or conduct a rather thorough search; it's unpredictable. Level 3 combines levels 1 and 2. Level 4 and above

►



WORDLE

restricts the computer's search to words of four letters or more. Level 5 combines levels 4 and 1. Level 6 combines levels 4 and 2 and Level seven 7 combines levels 1, 2 and 4.

Confusing? Not really. Just remember, levels 0 through 3 are the same as levels 4 through 7 except the former finds words of three or more letters, while the latter finds words of four or more letters. Basically, the higher the level, the harder it is for the computer.

The Time button indicates the number of minutes you have to search. Zero gives you unlimited time and you'll have to use [Escape] or click on Pause to stop playing.

The Exit button returns you to the Desktop. At this time you're given the option of saving the dictionary. If you do not save it, all the words you taught the computer are deleted.

The **Scores** window is below the buttons, displaying the scores from the previous five games. Five games equal one round, and the highest scoring rounds are saved on the **Top Scores** sheet. To view the Top Scores sheet, click the mouse anywhere in the Scores window. The first five lines show the highest scoring rounds. The sixth line is reserved for the last round's score. The top scores are saved to disk when exiting Wordle, in WDLYOU.HSC and WDLCMPTR.HSC. Click once again to return to the regular Scores window.

The Menu Bar

Across the top of the screen is a menu bar with two drop down menus, File and Options.

The File menu has four options: **Load Board/Wds**, **Save Board/Wds**, **Kill Board/Wds**, **Save Custom** and **Delete Words**. Save

Board/Wds lets you save any particular board you like. Load Board/Wds lets you play it again. Kill Board/Wds deletes the file containing a saved board. Save Custom saves all your current settings — board size, name, mouse on or off, etc. — and stores them as default settings. Delete Words lets you edit the dictionary. It is displayed in the right margin and begins, of course, with "A" words. Click on the double arrow boxes to scroll through the alphabet. Use the slider bar to move through each letter's list. To delete, simply click on the word. An alert box asks if you really want to delete it. To exit, click on the close box.

(About the Wordle dictionary: if it becomes so large that beating the computer is nearly impossible, simply delete or rename the dictionary file, WORDLEAZ.DIC. Another, much shorter file will supersede it.)

The Options menu offers several



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choices. Clicking on **Dare Cube**, **5x5 Grid**, **4x4 Grid** or **Mouse** activates or deactivates them. The Dare Cube contains a letter with which it is extremely difficult to make words. It's the glowing red letter on the board. The grid choices change the size of the board.

When Mouse is checkmarked, you can use the mouse during a game. Pressing both the right and left mouse buttons simultaneously also toggles this option.

Enter name, obviously, lets you enter your name; the default is "You." When you change your name, the current name in the Scores window is erased and you enter a new one. The computer saves the old name and score, and loads a fresh file using the new name. Wordle also asks if you wish to erase the top scores. When you exit the program, the top scores are saved under the new name, not the old.

View Words lets you see the last (or loaded) game's words. The Printout option dumps the board and its words into an Epson compatible printer. **Help** briefly explains the game and its options.

Organizing Your References

Wordle can develop a rather large group of data files (any file without a .PRG extender) and clutter your disk directory. The data files can, however, be separated from the program. Create a new folder and place your data files in it. Put the WORDLE.PRG file with your other game files. Double click on WORDLE.PRG. When the program can't find its data files, a dialog box appears asking if you want to set a path to their location. Click on yes. In the file selector box, open the folder that holds your data files (WRDLPIC.DAT, dictionary, etc.). The program looks for the data files and, if successful,

creates a file called PATH.WDL in the drive's/partition's root directory. A box appears, asking you to confirm the path. If the path displayed in the edit box is the one you specified, hit [Return]. If it's not, correct it and hit [Return].

A Final Word

I hope you enjoy Wordle. It's a great way to learn new words and hone your spelling skills. I'd appreciate any comments you might have. Just send them to me either in care of START or on CompuServe (71510,1134) or GENIE (XTX17789). Have fun and, by all means, don't forget your dictionary. ■

Eric Slick wrote Wordle to demystify the world of computing for his wife, Susie, who is (or was) an aficionado of Boggle. This is his first appearance in START.

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Welcome, Warriors. You are about to embark on a deadly test of courage and strength. Stay alert and shoot straight, champions, for only one of you will make it out alive!



| AT A GLANCE | |
|----------------------|--|
| Program: | Warrior ST |
| Type: | Two-player shoot'em up |
| Requirements: | 512K, low rez, two joysticks |
| Arclite: | WARRIOR.PRG |
| Files: | SET01.WAR SET07.WAR SET02.WAR SET08.WAR SET03.WAR SET09.WAR SET04.WAR WARIORST.LST SET05.WAR WARIORST.PRG SET06.WAR |
| Language: | GFA BASIC 3.0 |

Warrior is a fast-paced, two-player game patterned after Warrior 3000, the 8-bit classic written by Ken Greiner in the February 1986 issue of *Antic* magazine. Along with its stunning graphics, the ST version of Warrior includes a built-in screen editor with over 30 different objects from which to choose.

Getting Started

To play Warrior, double-click on the archive file WARRIOR.PRG and

choose Extract when the dialog box appears. Select a destination disk and the files will be un-ARCEd directly onto that disk. To start the game, first check that WARIORST.PC1 is in the same folder as WARIORST.PRG, then double-click on WARIORST.PRG. Warrior runs on all STs; however, 520ST owners may have to remove some desk accessories in order to free up memory. The game runs in low resolution and requires two joysticks.

The Warrior title screen presents you with three options: **Game**, **Quit** and **Editor**. To select an option, either left-click in its box or press the first letter of the option.

Warrior Gameplay

At the Warrior title screen, click on Game or press [G]. Make sure two joysticks are plugged into your ST (1040ST and 520STfm owners will find this easier to do with the Mouse Master from Practical Solutions, or with some joystick extension cables.)

Warrior will first prompt you to load screens. Here you'll see a list of all of the .WAR files in the current directory. Each file contains a set of nine game screens, which are played in random order. To select a set, press the keyboard equivalent of the letter next to the desired file; the file

will load and the program will then automatically begin the game. If you press the [Spacebar], a random file will be selected from the existing files. At the game screen, press [Escape] to return to the title page.

Warrior presents you and your opponent with two champions — one red, one blue. The object of the game is to eliminate your enemy with your bow and arrow. Move your warrior by pushing the joystick in the appropriate direction. To fire an arrow, point your bow in the right direction and press the joystick's fire button. Be sure to keep an eye on the number next to the arrow at the top of the screen. This shows how many arrows you have left.

Your remaining lives are shown at the top of the screen as a row of red or blue figures. When a warrior dies, the round is over and a dialog box appears showing who won the battle. Both players must press their fire buttons to proceed to the next round. When one player runs out of



WARRIOR ST



A Dual-Player Duel

warriors, the other player wins the game. Press any key to return to the title screen.

Creating Screens

To create new screens or edit existing ones, select Editor from the title screen. The mouse must be plugged into port 0; a joystick in port 1 can be used for testing screens.

The **Load Screens** display will then appear. It is identical to the one that appears for playing the game except that the mouse may be used to select files and [Spacebar] brings up a set of blank screens.

The editor screen will appear after you make your selection. Along the top of the screen is a menu for selecting objects with which to draw. It also lists editing options. The rest of the screen contains the playfield where the warriors' battle takes place.

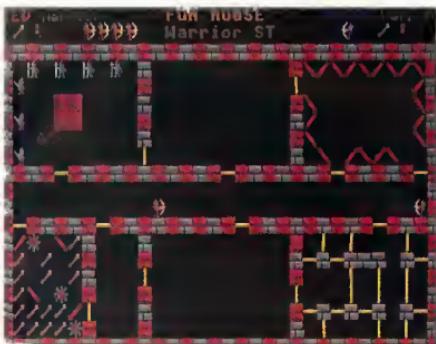
To draw something on the playfield, select one of the objects from the menu. A copy of it will

appear in the **Current Object** window. You can choose from objects such as bricks, guards, invisible walls, transporters, arrows

and mirrors. There's also a **Help** mode. When the "H" in the menu is highlighted, help is available. Simply

continued on page 68

One of the screens found in **Warrior ST**.



Use existing game screens or create your own.



Disk Contents

Programs on Your START Disk

THE GREAT GAMESCAPE

So, what exactly gets put on a disk that accompanies a summer games issue? Games, what else! A broad variety of games, a veritable landscape of games, games to help you escape for hours and hours.

Crossword Creator, written by John L. Hutchinson, isn't a game per se. It's a game designer. Crossword Creator helps you make your own crossword puzzles — clues, solution, blank puzzle and all.

The next program, however, is ready to play. Dive headfirst into a hole as Edwin, the mutant snake, in **Bugs!** Edwin springs from the fertile imagination of Greg "Maddog" Knauss. Gobble the radioactive pellets and get out before you're bitten by a deadly bug.

If you prefer your heroes human instead of reptilian, you'll enjoy playing

Warrior ST. In this game, your opponent is human also. Warrior pits you and another person against each other, maneuvering for the best firing position while dodging invisible obstacles and threading a maze. Evan Black is responsible for the code; his brother, Jason Black, drew the graphics.

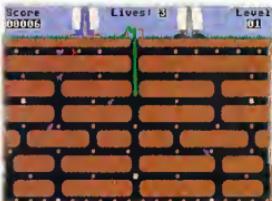
For our less bloodthirsty readers we present Eric Slick's

Wordle. A square of letters appears before you. While the clock ticks, hunt for words within the scrambled letters. You play against the computer; the more you play, the smarter the computer gets.

Last, but not least, we've included something for the kids. A. Baggetta wrote **Fun Pages** so that he'd have a quick way to generate a little distraction for his children. Anytime the kids get restless, plop a Fun Page and a pencil in front of them, and they, and you, will be happy.

From the outset, let us apologize to any readers who own only a monochrome monitor. You won't be able to use any of the programs on this disk except the monochrome Crossword Creator. That's the nature of games; they want color.

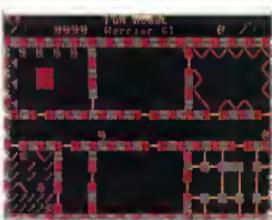
NOTE: We've changed the disk once again. Now it's easier than ever to access START programs. The archive files on this disk are self extracting. Simply double-click on the .PRG file to uncompress the files. For a more thorough explanation, read the Disk Instructions.



BUGS! PAGE 50



WORDLE PAGE 60



WARRIOR ST PAGE 64

| | compatible not applicable | Archive | UnArch Size | Stack | Memory | Resolution | Notes |
|------------------------|------------------------------|---------|-------------|-------|--------|------------|---|
| Bugs! | BUGSBUGS.PRG | 77K | | | | | |
| Crossword Creator | CROSSWRD.PRG | 154K | | | | | |
| Mountain Solitaire Fix | MTN_FIX.PRG | 39K | | | | | needs datafiles from March 1990 to run. |
| Fun Pages | PAGES.PRG | 67K | | | | | |
| Warrior ST | WARRIOR.PRG | 183K | | | | | |
| Wordle | WORDWORD.PRG | 159K | | | | | |

Disk Instructions

HOW TO GET START PROGRAMS UP AND RUNNING

- 1) Write protect your disk.
- 2) Make a backup copy. We format the disk using TWISTER.PRG (written by Dave Small and Dan Moore, Summer 1988 issue of START) to increase the size of a single-sided disk to 400K. You can back up onto one Twisted, single-sided disk; one double-sided disk; or two GEM-formatted, single-sided disks.

NOTE: TWISTER DOES NOT WORK WITH GEM'S DISKCOPY. To make a backup, open a window for your START disk, then drag the files from the window to the backup disk.

- 3) Store the original and use the backup hereafter.
- 4) Un-ARC the files. We use Double Click Software's DC SEA utility to create self-extracting archive files. To un-ARC a program, simply double click on the filename.

- 5) When the dialog box appears, choose Extract.
- 6) When the file selector appears, choose a destination disk (hard disk, RAM disk or floppy disk) for the uncompressed files. Make sure the destination disk has enough space for the uncompressed files, whose sizes are given in the chart on the Disk Contents page.

The screen goes blank, then the files are listed as they are extracted, and marked "OK" if the uncompression is successful.

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continued from page 65

move the mouse over an object and a brief explanation of it appears in the center of the playfield. Turn off Help mode by left-clicking on the "H," or pressing [Help] on the keyboard.

Will It Survive?

Objects are either indestructible or destructible. Indestructible objects, of course, cannot be destroyed; destructible items, on the other hand, can be destroyed with an arrow.

Mirrors function three ways. If they're hit at an angle, they reflect the arrow 90 degrees. If they're hit straight on, they'll explode. Arrows can pass through them if they're fired upon lengthwise.

Teleporters transport your warrior to a different part of the screen.

There are three different teleporters: the square indestructible teleporter, the round destructible teleporter and the invisible teleporter. There are two more invisible objects: the destructible wall, represented by a hollow cube, and an indestructible wall, represented by a cube with bricks on it. Invisible objects only appear in the editor, except for the indestructible wall which magically appears as a brick wall when hit with an arrow.

There are three special objects in the menu: extra arrows, the arrow bouncer and destructible bricks. The arrow will give the warrior who touches it an extra arrow or two. These arrows will also appear if both warriors run out of arrows during the game. The bouncer will reflect an arrow in one of eight directions or explode when hit. The destructible bricks look just like the regular bricks except they can be destroyed.

In addition to the **Current Object** window, the menu also contains the **Mirror Mode** window, which shows the current mirror in effect. To change the Mirror Mode, click on the window with the left mouse button and a menu will appear. Selecting this window with the right button

turns the mirror effect off.

Click on one of the two warriors in the menu to set the starting position of that player. Click on the player whose starting position you wish to set, then select the square on the playfield where the warrior should stand.

There are two indicators in the menu: the **Current Screen** indicator and the **Overwrite Flag** indicator. The Current Screen indicator tells

mode on and off.

Name, [N]: Lets each screen have a small title which is shown at the top of the screen when playing the game.

Clear, [C]: Clears the current screen.

Undo, [Undo]: Erases the last object drawn.

Load, [L]: Loads a new set of screens. Warning: this will erase current screens in memory.

Each game consists of nine different screens played in a random order.

you which of the nine screen in a set you are editing. To change the current screen either press the number on the keyboard of the screen you wish to edit, or click on the number with the mouse. If you use the mouse, you'll see a display showing all nine screens in miniature. Simply click on the screen you wish to edit.

The Overwrite Flag determines if an object will be written over with another object. If this indicator shows a . (period), you must first erase whatever is in the square by right-clicking on it, then adding another object. If the indicator shows an * (asterisk) then the underlying object will be replaced with a new one without having to erase. This mode must be used when replacing the bricks on the top and bottom of the screen with another indestructible object. Just click on the indicator with the left mouse button to toggle the overwrite flag on and off.

Other Options

The rest of the menu items can be selected by clicking on their appropriate squares or pressing their keyboard equivalents.

Help, [Help]: Toggles the Help

Save, [S]: Saves the current screens to disk with the extension .WAR. The last filename accessed is shown at the top of the screen.

Exit, [X]: Returns you to the title screen. Be sure to save your work first!

Test, [T]: Lets you test the current screen with the joystick. Has only one player and an unlimited amount of arrows. Press the left mouse button or [Escape] to return to the editor.

Some Things to Remember

Only indestructible objects can be placed on the top and bottom rows of the screen. Be sure not to trap the players in a room surrounded by indestructible walls. If you come to a situation where the warriors are trapped, press [Escape] to abort and return to the title screen.

We hope you enjoy playing Warrior ST. We had a lot of fun creating it. ■

Evan and Jason Black are brothers who live in Arizona. Jason is an art student and Evan programs for fun. This is their first appearance in START.

continued from page 49

(namely the Russians) went out and made some downright peaceful gestures. This may be good news for the world at large, but what does it mean for us simulation fans? Where will combat simulations be without the Cold War? Lucky for us, however, MicroProse was not daunted;

the grouping.

Your rank depends on the difficulty of the scenario. Essentially, the harder the task the higher you rate and rank. Several variables let you manipulate the difficulty of each simulation: Year, Boat, Challenge and Scenarios. The year you choose for your confrontation is important.

In 1992, the Russians have Nuclear aircraft carriers.

Red Storm Rising is one of the best combat simulations I've ever seen.

The package contains a manual, disks and map of the Norwegian Sea Theater. You are in command of a Nuclear Fast Attack sub and, as in the novel, your task is to stop enemy shipping, defend your patrol area and occasionally launch offensives at land targets. This naturally requires training and as usual, the manual is the place to begin.

The manual is a veritable arsenal of information; it is, in fact, your best weapon. It consists of Operations, Captain's and Reference Manuals. The Operations section summarizes Red Storm Rising and its options. The Captain's section details offensive and defensive tactics and provides many useful words of wisdom. The Reference section reviews the six different classes of U.S. boats and introduces you to the Bear.

The Bear is the Red Banner Northern Fleet, your main opposition. It consists of 11 classes of nuclear boats, bombers and cruise missiles. Combined with six classes of the silent diesel boats, you have around 180-plus undersea targets at which to aim. The surface component is comprised of Cruisers, Destroyers, Frigates, Amphibious Warfare ships and three types of aircraft carriers, around 90 targets in

For example, in 1992, the Russians have nuclear aircraft carriers; in 1996, the SeaWolf is operational.

The NMPC (Naval Military Personnel Command) assigns you a strategic position based on the type of Boat you select. Not all of the five submarine classes are available all the time. The SSN Permit, SSN Sturgeon, SSN Los Angeles and SSN Improved Los Angeles are, but the SeaWolf can be used in 1996 only.

There are four Challenge levels. Introductory is recommended for the first few games. Normal is best for the casual players. Serious sees the enemy as up-to-speed, so you better be as well. The screen says it all for the Ultimate level: "Life can be brutal and short."

Your choice of Scenarios includes Training Actions, a one-on-one with either a November sub or Kashin destroyer, Battle Simulations, Duel and Chance Engagement among others. The eighth scenario is the primary campaign, Red Storm Rising. This scenario incorporates all others, and believe me, you'd better be experienced, because in this scenario, you don't know what's out here until it bites you.

The true test of your capabilities in this game is discovered in the year 1996, on an NMPC assigned boat, at the Ultimate level in the Red Storm Rising scenario. Good luck!

On any level, however, Red Storm Rising is great strategic fun. Even if it becomes one of the last, it will still rate as one of the best simulations ever. ▶

Ten Top Selling Games of 1989

Compiled by Marta Deike, Junior Editor

Battle Chess, \$49.95

Activision (415) 329-0500

Blood Witch, \$49.95

Mirror Soft, London (01) 928-1454

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Populous, \$49.95

Electronic Arts, (415) 571-7171

TV Sports: Football, \$49.95

Cinemaware, (805) 495-6515

War in Middle Earth, \$49.95

Mastertronic, (714) 833-8710

Games are not in order of popularity. The list was compiled through independent ST distribution sources. At press time, the front runners for 1990 were Ultima V (Origin) and Fighter Bomber (Activision). Any of these should be found at your local Atari dealer.



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ARCADE



Sometimes also known as "shoot 'em ups" and "back-and-slash," these games are popular for untangling mental knots, and work particularly well with your B52's-Mozart-Kingston Trio albums. (Caveat emptor: they are infamous for being highly addictive.)

AT A GLANCE

| | |
|----------|---|
| Game: | Fiendish Freddy |
| Company: | Mandscape, Inc. 3444 Dundee Road Northbrook, IL 60062 708/480-7667 |
| Price: | \$49.95 |
| Summary: | A big top o' graphics well worth stepping into. |

FIENDISH FREDDY'S BIG TOP O' FUN

Reviewed by Greg Perez

Hurry, hurry! Step right up and into Fiendish Freddy's Big Top O' Fun from Mandscape. It's up to you and your friends to work up 10,000 smackeros and save the beloved Big Top from the clutches of the Big Greedy Bank. To get the cash, you've

THE TIMES THEY ARE A-CHANGIN'

When the Berlin Wall crumbled, John LeCarre wasn't the only author left out in the cold. Game companies also found their East vs. West scenarios abruptly obsolete.

Our nomination for the It Was A Good Idea At The Time award goes to Accolade, which just released *The Third Courier*. You are Moondancer, a CIA agent assigned to recover stolen NATO defense plans hidden somewhere in divided(?) Berlin, "the legendary city known for intrigue, espionage and one heck of a wall", according to the box copy. These days it's easier to complete your mission in reality than in software.

got to master six events, while a devious little clown named Freddy tries to stop you. Freddy doesn't sport a handful of Ginsu cutlery, but he has got quite an arsenal of terrifying toys that can send you and your circus crew vaulting to that Big Top in the sky.

The events range from Phenomenal Feats of Diving Daring to the pulse-pounding Tense Travel Techniques on Tightrope. Each event calls for different joystick skills and to every one, Freddy brings his own sick brand of fun. For instance, one of his more humorous appearances occurs during the center-ring act of Jeffy-Joe, Genuine Juggling Genius. As Jeffy-Joe juggles such miscellaneous objects as iron anvils and chainsaws, Freddy arrives with a bomb and helps Jeffy go off with a "bang".

I've seen so many multiplayer competition games that I didn't think I'd ever want to see another. But Fiendish Freddy is a sight for sore eyes. The cartoon graphics are great; they're dazzling and hilarious. I actually found myself snickering at the unfortunate end of high-flying Finola as she plummeted ever so gracefully from the heights of the trapeze, thanks to Freddy "cutting" her act short.

Because of the stunning animations, the game is packed onto five disks. (Hard disk users rejoice!) But the great fun and comical animation of Fiendish Freddy make the con-

stant disk-swapping well worth the trouble.

SUPER HANG-ON

Reviewed by Dave Gregg

AT A GLANCE

| | |
|----------|--|
| Game: | Super Hang-On |
| Company: | Data East 1850 Little Orchard St. San Jose, CA 95125 408/286-7074 |
| Price: | \$39.95 |
| Summary: | A stripped-down motocross simulation that's more than an average race. |

I've never been much for car and motorcycle simulations — they all seem to do the same thing and once you've tried one, you've tried them all. This was my thinking going into Super Hang-On from Data East. Well, opinions can and do change.

Super Hang-On is a stripped-down motocross simulation that spans four continents. These continental races are essentially the levels of difficulty and each has a certain number of stages you must complete. Africa is the easiest with a mere six stages. Europe is the most difficult with 18. You may choose any level you want. Your perspective is first person and control is through the mouse.

Super Hang-On's appeal is that it offers something for everyone. Not ►

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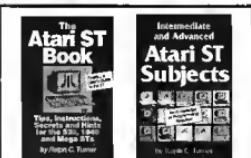
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Better oil your joysticks! Robocop requires a fast wrist.

all of us can be hot-shot arcade-gamers who consistently make the highest score. Super Hang-on seems to take this into account. So what if you can't handle Europe? There's always Africa.

Graphically, Super Hang-On is a treat — when you speed up, you really feel like you're speeding up. And the scenery even changes as you travel across the various continents. For instance, as you zip through North America, you see the hulking skyline of New York city change to the greenery of the northeast coast and midwest and soon find yourself in the deserts of the southwest.

Of course, there isn't a lot of time to enjoy the scenery — you've got a race to win. Check out Super Hang-On — and please drive gently.

ROBOCOP

Reviewed by Dave Gregg

AT A GLANCE

| | |
|-----------------|--|
| Game: | Robocop |
| Company: | Data East |
| | 1850 Little Orchard Street |
| | Son Jose, CA 95126 |
| | 408/286-7074 |
| Price: | \$39.95 |
| Summary: | A traditional shoot 'em up with modern graphics. |

It doesn't take long to figure out what Data East's Robocop is all about — just plug in a joystick, boot the game and start blasting away. That's all there is to it: no reading people their rights, no following "due course of the law." The game appears to rest

on the premise that everyone's a suspect, so it's best to shoot first and ask questions later. At least in the movie, the criminals were given the benefit of the doubt.

Which is not to say that Robocop is a bad game. It certainly *looks* good although the animated figures could be a little larger, and gameplay is very intuitive — you just shoot the bad guys. There are nine levels and each one presents you with a different way to obliterate the opposition. Make sure you have a good joystick on hand — movement can be a little haphazard, especially when jumping.

Robocop offers nothing new in the way of shoot-em-ups, but it is fun in a maniacal sort of way and if you're into that sort of game (and I am), then check this one out.

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SPORTS



Sports simulations offer more than a distraction on rainy days. They are excellent for practicing eye-hand coordination and strategic planning, not to mention cursing. They are also — thank goodness — still a viable alternative for actual exercise.

TV SPORTS: FOOTBALL

Reviewed by Scott Wasser

AT A GLANCE

| | |
|----------|---|
| Game: | TV Sports: Football |
| Company: | Cinemaware Corp. P.O. Box 5083 Westlake Village, CA 91359 805/495-6515 |
| Price: | \$49.95 |
| Summary: | A winner by yards. |

You wait weeks for the latest sports simulation to arrive and when it finally does, you breathlessly boot up. Invariably, however, your spirit plummets. You turn to the documentation, which generally reads something like this:

"To make a player shoot-pass-dribble-run, move the joystick-mouse in the corresponding direction or press the cursor arrow key that most closely corresponds to the direction you want the player on the field— ▶

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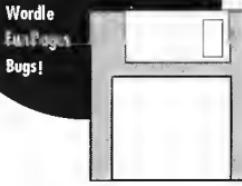
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Bugs!



court-diamond to move. The player must be flashing-blinking at the time.

"Do not move the joystick-mouse or press the cursor key until you have selected a play from the on-screen

worthless if the user interface is harder to figure out than a Fernando Valenzuela screwball.

Cinemaware's TV Sports: Football (TVSF) is the glowing exception. The

guide a ball carrier on a 55-yard scamper or help a receiver make a diving touchdown catch.

About the only thing TVSF's interface does not let you do is throw a block. The computer handles the blocking assignments for you, but every other aspect of individual offensive and defensive play is controllable. You can run, pass, and kick on offense or fight off blocks, leap for an interception and make lunging tackles on defense.

The graphics in TVSF are fair. The players move quickly and change direction with every twitch of your joystick. Balls can be kicked or thrown as precisely as you can control the stick. It can, however, be difficult to see whether a ball is caught or dropped, and occasionally, a runner's progress is impeded by a blocker or stopped by a tackler even though there appears to be daylight between the two players.

menu-player command card. Do not release the fire button-mouse button-cursor key until your player-athlete-competitor moves in the appropriate direction or unless his path is blocked by an opponent-foe. Do not breath at any time while playing this game."

Sound familiar? User interfaces such as these are the bane of sports-simulation buffs. Incredibly realistic graphics, fluid animation and amazingly accurate statistical algorithms are

user interface is extraordinarily elegant; not only is it accurate and responsive, it is remarkably intuitive.

You have the option to either call plays and manipulate all key competitors or sit back and let the computer run the game. The interface even lets you take control away from the computer at virtually any time during a game. For example, you can let the computer select a play and begin running it, then take over yourself to

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The aerial perspective of the field also bothered me at first. Except during place kicking sequences, when the view is from ground level behind the kicker, the screen is filled with about 20 yards of field from sideline to sideline. The screen scrolls vertically to follow the ball carrier or ball. The drawback to this is that wide receivers move out of the picture when running deep routes, which can

each one owned by either human or computer. Every team has 18 players ranked in four different skill categories. Although the total number of skill points is the same for every team, owners can juggle lineups and player characteristics to gain favorable matchups. As in the real world of football, a bad matchup can mean a loss no matter how good your play-calling (or joystick jockeying).

Table Tennis is an excellent simulation of a serious, often misunderstood, sport.

play havoc with your long passing game. But the perspective grew on me and it wasn't long before I found it satisfactory.

TVSF gives you the opportunity to start your own league of 28 teams.

Although TV Sports: Football has its drawbacks, it ranks far above most other sports simulations. Thanks to the responsive graphics and excellent user interface, it is a great deal of fun to play.

TABLE TENNIS

Reviewed by Scott Wasser

AT A GLANCE

Game: Table Tennis
Company: Star Games
 708 W. Buffalo Ave., Ste 200
 Tampa, FL 33603
 813/222-0006
Price: \$34.95
Summary: An excellent simulation of an
 antiquarian sport.

My first thought about a table tennis simulation was "Why bother? Haven't we evolved beyond Pong?" But Table Tennis from Star Games is as far from Pong as the ST is from the old Atari 400. It's an excellent simulation of a very serious, often misunderstood, sport.

Actually, the United States is one of the few major countries in which table tennis is largely unappreciated. Other ►

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START BOOKSHELF

Compiled by Marta Deike, Junior Editor

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RICK DAVIS' WORLD TROPHY SOCCER

Reviewed by Scott Wasser

AT A GLANCE

| | |
|----------|---|
| Game: | Rick Davis' World Trophy Soccer |
| Company: | Melbourne House |
| Price: | 18001 Cowan St., Ste. A & B Irvine, CA 92714 714/833-8710 |
| Summary: | Somewhat of a kick, but no great ball of fire. |

Based on the name alone, I had great expectations of Rick Davis' World Class Soccer from Melbourne House. But unfortunately, it turns out to be more B class than World Class. As a pared down — almost arcade style — game, it's fine, but as a true sports simulation, it's too limited.

After being treated to an eye-catching introduction, the scene changes to a partial overhead view of the soccer field. The screen scrolls both vertically and horizontally as you kick around the ball.

The 13-page manual is primarily a short biography of Rick Davis (the former American soccer champ) and history of the game. Actual instructions on gameplay are sparse. The manual does not tell you how to aim for a pass, shot, corner kick or throw-in. It does not tell you how to make the goalie dive or leap to block a shot, how to punt or pass. There are no hints or tips on general game strategy. These omissions are not particularly frustrating as much as they are telling — the game simply isn't complex enough to need elaborate instructions.

Rick Davis' World Class Soccer is somewhat redeemed, however, by its simplicity. It's pleasant enough as an afternoon diversion. You can play it without the manual. But you don't need docs for pinball either. If you're looking for some serious sport, better get your ball and head outside. ■

countries recognize the endurance, agility and power required to master the sport. Perhaps that's why it originally took a German company to bring it to the ST.

mouse and joystick (or two joysticks). You have more control with the mouse than the joystick. With the mouse, you position your own racket; with the joystick, racket is positioned

Table Tennis is as far from Ping Pong as the ST is from the old Atari 400.

Game perspective is similar to what you see when you're actually playing table tennis (nobody who is serious about the game calls it ping pong); you look straight at your opponent across the table. Your opponent can be a friend or the computer. There are 20 fictitious computer foes to choose from, each possessing a different style and ability level.

Table Tennis supports both a

for you. There are six different racket types and grips and four different strokes to play with. The strokes and rackets affect the speed and spin of the ball.

About the only serious shortcoming in Table Tennis is you cannot practice serving. It takes a while to develop an effective serve, just as in real life. But then, that's why this is a real simulation.

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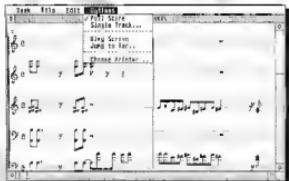
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Enter the Editor from the title page by pressing [Return].

You begin with a blank screen, upon which you can create a new maze. To modify an existing maze, press [F1]. Again, a box appears and you use the left and right arrow keys to cycle through the available mazes. Press [Return] when the number of the maze you want shows in the box. The [Escape] key aborts this operation.

Edit a maze with the mouse. When you enter the Editor, the blank tile is selected. Press the right mouse button to switch to select mode, then move the mouse until the white box highlights one of the tiles at the top of the screen. Press the left mouse button to make it the current selection and return to edit mode.

In edit mode, use the mouse to move the small white box around the screen. Press the left mouse button to place the current tile at the location of the mouse.

When you finish editing, [F2] saves the maze to disk. You can overwrite a current maze, or press the right arrow key until it reaches the end of the list, then press [Return]. The new maze will be added to the end of the sequence on disk.

A Job Well Done

"Look, the radiation's dropping already. He'll have the whole test site cleaned up by afternoon."

"Good job. So far. And stop grinning. Look, the scanners show another bug coming up. Where is he now?"

"He? You called him a he?"

"Well I... uh...OK! OK! He! It's a he! ■

order to proceed to the next level and a new maze. The bugs speed up every three levels and the time they are stunned by the big pellets decreases with each new level.

You have three chances to clear each level. If you're successful, you're given three new lives.

Edwin's Editor

The Editor lets you modify the original mazes or create your own.

Greg "Maddog" Knauss has been programming Atari's since he got his first 400 in 1982, despite the fact that several organizations exist to try to make him stop. He promises to visit START when he's next in San Francisco. We're anxious to examine him.

BUGS

continued from page 51

current level times two, plus one. On level one, for instance, you get three points; on level five, you get eleven. When you eat a bug, you get the level times five. When you complete a level, you get a 50-point bonus for each life you have left.

You must clear all the pellets from the maze and return to the surface in

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Fun Pages

Do your little darlings turn into monsters when bored? Tame the wild beasts with Fun Pages, favorite puzzles that will take their minds off mischief.

Fun Pages was inspired by one of my favorite breakfast restaurants. While waiting for hotcakes one morning, the waitress brought my children placemats that had an assortment of little games printed upon them.

What a great idea! These placemats could keep the kids enter-

BY A. BAGGETTA

AT A GLANCE

| | |
|---------------|--|
| Program: | Fun Pages |
| Type: | Kids' game generator |
| Requirements: | 512K, low rez |
| Archive: | PAGES.PRG |
| Files: | FUNPAGES.LST FUNPAGES.PRG FUNPAGES.P11 |
| Language: | GFA BASIC 3.0 |

Instant Amusement For Your Kids

tained when we had to wait at other restaurants, went on long car trips, or were delayed on shopping expeditions.

When I got home, I experimented with my Atari and Gemini printer, trying to produce sheets similar to the ones I had seen. After several hours scribbling on graph paper, I wrote Fun Pages.

Up and Funning

To use Fun Pages, double-click on the archive file PAGES.PRG and choose Extract when the dialog box appears. Select a destination disk and the files will be un-ARCDed directly onto that disk. To start the program, switch to low resolution and make sure that FUNPAGES.PI1 is in the same folder as FUNPAGES.PRG, then double-click on FUNPAGES.PRG.

Each Fun Page has four games, two of which always are TIC TAC TOE and Secret Word (the secret is its scrambled). The remaining two are chosen from the following list.

1) Faces: Doodle features on preprinted heads. Six are chosen from the program's repertoire of 10.



2) House: Design your own house by drawing the windows and doors.



3) Igloo: Similar to House.

4) TeePee: Similar to House.

5) Guess How Many Circles: Try to figure out the number circles that were printed. The capital letter next to the puzzle gives the answer. A equals one circle, E equals five circles, Z equals 26 circles, and so on.

6) Connect the Dots Game: A symmetric grid of dots is printed. Two people alternately connect the dots by drawing a line between adjacent pairs. When a person completes a square, it is theirs. The one with the most squares wins.

Pick and Choose

After the title screen is displayed for a few seconds, you will see the Fun Pages Construction Menu. Using the mouse, choose the first puzzle you want printed, or click on Computer Random

Choices, which lets the computer pick. If you didn't opt for Random, a second menu appears. Choose your second puzzle.

Your Fun Page will be printed automatically. You may abort printing at any time by pressing [Al-

ternate] and [Help] simultaneously. Otherwise, when the page is done, you will be given the opportunity to construct another.



Setting Up the Printer

The programs expects your printer to be set for 960 pixels per line. To set it, or check it, install the Control Panel accessory which came with your ST. (Put the program CONTROL.ACC in the root directory of your boot disk.) At the Desktop, activate the drop-down menu under Desk. Choose Control Panel.

The Control Panel will appear in the middle of your screen. Click on Install Printer in the lower right hand corner. A list of printer options appears. One is labeled Pixels/Line. Make sure 960 is highlighted. Click on OK, then on the close box of the control panel.

If you want the printer automatically set to 960 pixels per line every time you boot, save the Desktop. Otherwise, always check your printer's options before using Fun Pages. ■

A. Baggetta has contributed to both Antic and START magazines. He wrote Santa BBS for the December 1988 issue of START.

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The ST/MIDI Connection

REFLECTIONS

BY JIM PIERSON-PERRY

I'm writing this column during the February doldrums — just after the winter NAMM show and prior to a major international music trade show in Germany this March. With new software/hardware products and true multitasking environment coming quickly toward us, it seems appropriate for a quick retrospective of last year's hopes and realities, as well as our usual potpourri of new releases and notes.

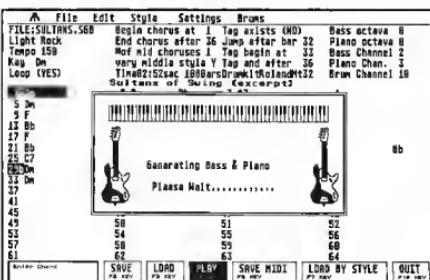
Progress and Promise

This installment marks the twelfth appearance of the "ST/MIDI Connection," an anniversary of sorts. Back in the January 1989 issue, I fantasized about software applications that I would like to see explored. The categories were: scoring music to video (hit list management), sample resynthesis, new forms of algorithmic composing (especially for real-time interaction/improvisation), intelligent scoring, drum machine programming and a standard multitasking environment.

How have we done since then? Not too badly. **Hitman** and **Hitlist** are software solutions for scoring to video, while more advanced users have the **ADAP II** digital sound workstation. The Avalon sample editor includes a fair start at frequency domain sample editing and

resynthesis. **MIDI Drummer II**, as well as numerous sequencers, provides convenient drum-machine programming solutions. Finally, after several developers created their own

across all product applications. While MIDI-to-MIDI communication is paramount, there is no reason why not to be running a sequencer along with a word processor while being



Sample campasi-
on screen from
Band In A Box,
the new algo-
rithmic campasi-
on program to
create piano,
bass and drum
accompaniment
parts for songs.

versions, Atari has selected the **MIDI-Tasking** multi-application manager from Intelligent Music as their standard. Some new algorithmic composing efforts have come out while new ones lurk in the wings — call this one a draw on prediction. The only clear miss was scoring, where the year saw little activity (particularly relative to exciting new Macintosh software).

OK, bucko, what's next? Here is my condensed wish list for the coming months. First, Atari must work diligently to integrate its newly sanctioned multitasking environment with major software developers

on-line to a BBS. Developers, on the other hand, need to move away from the "Total Workstation" program concept and use smaller, robust modules for individual needs. Massive efforts combining patch editors, scoring, sequencing, etc. into one program are simply too unwieldy. Rather than do a single task well, many are done with numerous compromises. This is where multitasking is vital for interprogram communication. Users benefit from faster learning curves, less resource requirements (only use the parts you need) and easy customization of software systems.

MIDI-controlled mixing applications are a fast growing interest.

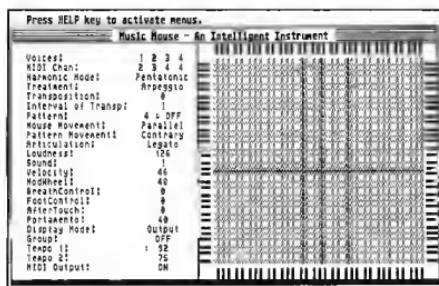
General application areas that need a boost are home music education (theory, performance, critical listening, etc.) and sample editing. The latter will require some form of hardware assist, such as in the new Sound Tools package, for speed and audio quality. A potential sleeper is the canned sequence market, should average home owners begin to discover low cost synth modules as the "next" piece of a stereo system. These sequence libraries (already being marketed by Passport Design and others) are also a Godsend to musicians on gigs without the time to craft their own.

My last bet is that MIDI data-

selection menu that determines which algorithms will be applied. These range from polka, through country to hard rock — 14 choices in all. Band In A Box plays the accompanying parts through MIDI while you jam along and saves its parts in MIDI file format 1 to import into a sequencer program for later tweaking. The quality of the accompaniments is quite good. Fifty song files of all styles are included with the program; an additional 250 song files are available on a MIDI Fake Book. Plans for a future upgrade are to add additional voices for horns and strings.

A different beast altogether is Scorpion Systems' **sYbil**, a real-time

Playing screen for MIDI Mouse, the software performance instrument by Laurie Spiegel.



processing programs will become far more valuable as musicians learn how to use them. These programs are the offspring of the computer/MIDI union; new software instruments with capabilities that can't be duplicated by unaugmented human musicians.

New Releases

One of the neatest programs I've seen in a long time is **Band In A Box**, released for the Atari and IBM by PG Music. You type in the chords to a song and the program uses algorithmic composing to derive accompanying piano, bass and drum parts. The fun comes in with a style-

MIDI data processor along the lines of MidiMax and Ultra MIDI. You can use it to control multiple synths or other devices from a single controller, with each responding in a different fashion as you play. Keyboard splits, layers and zoning are snaps to set up and change between notes. Even the ST keyboard can be used as a controller — playing MIDI music and effects by touch typing. To get a better idea of sYbil's potential, you can call a demo hot line at (313) 827-1444.

MIDImouse has released **Music Lights**, an interactive computer graphics link to your home MIDI system. It plays standard MIDI files

(format 0) and accompanies them with expressive graphics displays. Ten styles of graphics are provided including swirling lines, spirals, kaleidoscope, inkspots and more. Not only does it play MIDI files, you can play into it from a MIDI keyboard or even use the ST keyboard (and save your work into a MIDI file). Don't have a MIDI synth? No problem, Music Lights also works fine just by playing the ST internal speaker — particularly good for demoing the ST sound/graphic abilities. Also announced was **Rhythm Time**, the fourth title in MIDImouse's educational software series.

MIDI-controlled mixing applications are a fast growing interest. Two new releases hit the opposite poles of the user audience: home hobbyist or semi-pro and high-end pro studio. At the introductory level (really the price only — its capabilities go well into the pro level) is the **Audio Control Module** from Steinberg/Jones. This eight-channel mixer sports eight ins, eight outs and a stereo mix with full MIDI control of the faders. It is similar to VCA-controlled mixers but uses a different technology and is reported to be very clean and quiet. Each mixer channel is governed by a real-time MIDI controller message on a specific channel. Taken to the limit, you could gang 16 modules together for a total of 128 mixing channels!

At the high end is the VCA-based **MAGI II** (Mixer Automation Gain Interface), giving SMPTE-locked fader mixing and mute automation for up to 64 faders. Two versions are available: the basic MAGI II (remote unit that connects into your existing console board audio path) and MAGI III (a retrofit for existing mixing consoles). Integral to the systems is controlling software (Atari and Mac versions) that provide graphic mix

displays, cue list editing and MIDI event generation.

Of course, what month would be complete without new patch editors? This time it's Big Noise Software with selections for the new Korg M3r and T-123 series. These are the first dedicated patch editors for these synths in the Atari market.

Updates

C-Lab is now shipping version 2.2 of its **Creator/Notator** sequencers through U.S. distributor Digidesign. A major new feature is the incorporation of **Soft Link Level 2**, the C-Lab version of a multi-application manager, allowing up to eight other Atari applications to run simultaneously with Creator/Notator (memory permitting). An additional new feature lets you automatically load/play a song at a preprogrammed time and apply the velocity dynamics of one track to another.

Master Tracks Pro version 3.5 is available from Passport Design. This version fixes a TOS 1.4 incompatibility with certain mouse double-click actions and is — deep breath now — not copy protected. Thank you Passport for your vote of confidence!

On the patch editor side, Dr. T has released version 1.1 of **X-OR**, the first generic patch editor program for the Atari. You can now dump entire patch banks into a patch library, rather than enter them one at a time. Support for multi-timbral synths is greatly improved with automatic tracking of MIDI channel, etc. **E-OR**, the development program to create new instrument profiles now comes with X-OR. Currently, profiles exist for over 50 instruments — most providing full patch/performance editor support.

Staccato Notes

Good news for those of you with the Atari SLM804 laser printer. The **Laser Brain Epson emulator** (available on both GEne and CompuServe) has

been released into the public domain by Atari. This works well with scoring programs such as EZ-Score Plus from Hybrid Arts to get output from the laser. Resolution is not 300 dpi but is considerably crisper. And, of course, it's faster than going through a dot-matrix ribbon printer.

Anyone with an interest in learning how to program synth patches should make a point to follow Lorenz Rychner's continuing series in *Music Technology* magazine. Synths described in past issues include the DX7, TX81Z, D110, M1, K1 and K4. Another continuing column (on a more sporadic basis) in the same mag is on advanced sampling techniques by guru Chris Meyer. Both are full of information and do-it-yourself exercises.

Dr. T has picked up distribution of Laurie Spiegel's **Music Mouse** program (formerly handled through Aesthetic Engineering). This is an algorithmic composition program, particularly well suited for live performance.

From the Roundtable

There are a few new additions worth mentioning in the MIDI Roundtable library of the GEne BBS. First is

PRODUCTS MENTIONED

M3r Patch Editor, \$119.95. **T-123 Patch Editor**, \$119.95. Big Noise Software, Inc., P. O. Box 23740, Jacksonville, FL 32241, 904/730-0754.

MIDI Max, \$49.95. Codehead Software, P. O. Box 74090, Los Angeles, CA 90004, 213/386-5735.

C-Lab Creator, \$349. **C-Lab Notator**, \$649. **Saund Tools**, \$2,995. Digidesign, 1360 Willow Run, Suite 101, Menlo Park, CA 94025, 415/327-8811.

Hitman, \$99. **Music Mouse**, \$79.95. **X-OR**, \$299. Dr. T's Music Software, 220 Bayston Street, Suite 306, Chestnut Hill, MA 02167, 617/244-6954.

ADAP II, call for price. **EZ-Score Plus**, \$149.95. GenEdit, \$249. Hybrid Arts, Inc., 8522 National Blvd., Culver City, CA 90232, 213/841-0340.

MAGI II, call for price. J. L. Cooper, 1931 Pontius Avenue, West Los Angeles, CA 90025, 213/473-8771.

Music Lights, \$49.95. Rhythim Time \$69.95. Ultra MIDI, \$229.95. Midimouse Music, Box 272-A, Rhododendron, OR 97049, 503/622-4034.

Hitlist, \$199.95. **MIDI Drummer II**, \$90. MusicSoft, 30 North Raymond, Suite 505, Pasadena, CA 91103, 818/449-8838.

SEQUENCER (library program #1045), a full-fledged 16-track sequencer put into the public domain. This program runs on all ST/Mega models in either medium or high resolution. I found only one problem — it looks for its resource file (SEQUENCER.RSC) only in drive A. If not found, the program bombs. Just be sure to keep a copy of the file on a floppy in Drive A and all will be well.

Confused about generic patch editor claims? Try them for yourself with the demo versions of **X-OR** (#805) and **GenEdit** (#988, #989). Another demo worth evaluating is **BOSSDEMO** (#963, #964), a trial version of the MIDI BOSS system control and real-time mapping program from Johnsware (who also maintains Category 22 in the MIDI Roundtable Message Board, should you have questions).

Finally, those of you with the popular D110 multi-timbral synth may appreciate the **XPATD110 patch file conversion program** (#984). It accepts patch files in Dr. T, MIDI-Mouse, Omnipatcher, GenPatch and MIDIEX formats and can translate them into Dr. T, MIDIMouse and MIDIEX formats. ■

Master Tracks Pro, \$395. **Upgrade to version 3.5**, \$10 with old master disk. Passport Designs, Inc., 625 Miramontes Street, Half Moon Bay, CA 94019, 415/726-0280.

Band In A Box, \$59. **MIDI Fake Book**, \$29. PG Music, 266 Elmwood Avenue, Suite 111, Buffalo, NY 14222, 416/528-2368.

sYbil, \$299. Scorpion Systems Group, 836 Page, San Francisco, CA 94117, 415/864-2956.

Audio Control Module, \$479. **Avalon**, \$349. Steinberg/Jones, 17700 Raymer Street, Suite 1001, Northridge, CA 91325, 818/993-4091.

WORDFLAIR

One Package, Five Programs

BY DAN FRUCHEY

What if I offer you a unique new product that can process text, mathematical formulas and database information all at once? Interested? What if that same program also correlates the data and generates graphs and charts that express the results? Intrigued?

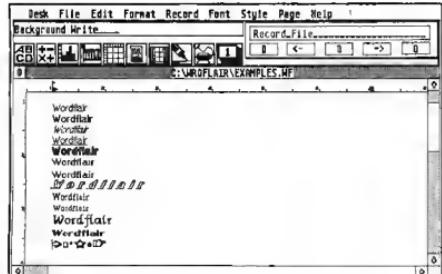
I'll add multiple fonts, graphics importing and options to create lines and boxes in a variety of styles. I'll throw in the most commonly re-

database/spreadsheet/graph generator/desktop publishing program from Goldleaf Publishing, Inc. (formerly Blue Chip International). It's one of the products I've been waiting for since the day my computer arrived. And it's almost worth the wait.

Up and Running

Wordflair runs in medium or high resolution on any ST or Mega with 1MB of RAM and a double-sided disk drive. Printing on a 24-pin or laser printer requires a second disk drive

Goldleaf's Wordflair is a true WYSIWYG document processor that allows multiple typefaces and point sizes.



quested desktop publishing functions, processing speeds that equal or exceed other word processors and outstanding print quality. Sounds too good to be true, doesn't it?

Let me introduce you to Wordflair, the unique new word processor/

and the manufacturer recommends a hard disk and monochrome monitor.

The 223-page manual is clearly written and easy to read. Hints, tutorials and helpful ideas abound in a format that won't strain your eyes or comprehension. Sample documents

AT A GLANCE

| | |
|----------------------|---|
| Program: | Wordflair |
| Type: | Document processor |
| Company: | Goldleaf Publishing, Inc. 7700 Larkspur Landing Circle, Suite 199 Larkspur, CA 94939 415/381-7717 |
| Price: | \$99.95 |
| Requirements: | ST with at least 1MB of RAM Double-sided disk drive |

and page templates are on disk.

Wordflair uses GDOS fonts and drivers to produce high quality screen and printer output. Since each monitor and printer requires a different configuration, you need to customize a working disk. The one-time installation procedure takes approximately 10-15 minutes.

As a bonus, the disk includes a customized version of Codehead Software's G+Plus, a GDOS substitute that's faster and less error prone.

Word Processing

Wordflair acts primarily as a word processor with desktop publishing capabilities. It has all the standard word-processing options: search and replace, block copy, cut and paste, headers and footers, page number placement, adjustable margins, ►

format rulers and predefined U.S. and European page sizes. You can type in your documents directly or load imported ASCII files.

The latest version of Wordflair does not include a spell checker or thesaurus, but commercial products that are currently available work well with the program. Goldleaf plans to publish a set of their own and offer them at a substantial discount to registered owners.

Desktop Publishing

Wordflair performs many basic publishing functions. You can create multicolumn page layouts, define automatic paragraph indentation, frame regions with round- or square-cornered boxes of variable thickness and create freely adjustable columns and grids.

Graphics can be imported in metafile (.GEM) and image (.IMG) formats. You can move, stretch, align, group and copy graphics at any time. A snap option and a handy T-bar alignment tool are always available to aid in placement of graphics or regions.

deviation. All you need to do is select a formula and plug in the numbers.

Graph

Wordflair creates bar, pie and line graphs. It uses data entered through the graph function, or imported from the database and/or calc functions.

Wordflair processes more than words. The integrated package includes a database, calculator and a graphing function (shown here). An upgrade, due out soon, will include a thesaurus and spell checker.



Up to eight different pieces of data are displayed at once. Horizontal and vertical axis titles can be changed at will and explanatory display labels are allowed on each piece of data used.

Wordflair will automatically assign grey scales to differentiate pieces of data, and generate a legend.

room to save your document before the session ends. Some programs simply lock up or bomb when this happens; Wordflair provides a safer alternative.

The Ultimate Program?

Wordflair delivers what it promises,

but it's not the ultimate program. If you need a word processor, you'll be extremely pleased with Wordflair. It's fast, flexible and easy to use. But in desktop publishing, data processing, graphs and spreadsheets, its abilities are limited.

Wordflair meets my math needs quite handily, but I would never recommend it for corporate finances. It's fantastic for creating simple newsletters, but a publisher would be dismayed by its limited layout capabilities.

Wordflair is ideal for the small business or individual who needs the abilities of several products and doesn't want to spend the time and money buying and learning multiple programs.

Yes, there are products that perform individual functions equally well or better. Wordflair's strength is that its functions work together, in one program, instead of five. ■

Wordflair's five functions work together.

Database

The database accepts user defined parameters. Data field length is freely adjustable. Mail merge is easy. The data can be printed or used with the graph and calc functions.

Calc

Calc functions retrieve information from the database, perform computations, then send the results to be used in graphs or for further calculations. You can create simple spreadsheets, prepare income reports and more. Many formulas are predefined, including those for averaging, exponentiation, rounding, square root and standard

Printing & Extras

Wordflair lets you configure your printing preferences: margins, tabs, paragraph indentation, columns, rulers, fonts, frames, lines and grids. Next time you run Wordflair, everything is set to your liking.

Drivers and fonts for common 9- and 24-pin printers are included with Wordflair and more are being written. The program works great with Atari's laser printer; pages normally print in less than 30 seconds.

If a document is too large to print (too many fonts or graphics, etc.) Wordflair will deactivate the printer driver to free up RAM. This gives you

Dan Fruebey is a paramedic and clip-art entrepreneur who lives in Santa Rosa, Calif. He wrote the word processor comparison for the April 1990 issue of START.

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by David Ramsden

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by Tom Hudson

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CYBER SCULPT includes cross-sectional modeling for shapes like boat and airplane hulls, or dimensional topography. Variable magnification, spline path extrude and spin are only a few of the many sophisticated options. More include: object distortion; vertex pulling; magnetic distortion; cross-sectional model creation; complex and simple extrude with end-capping; 3D mirroring; 3D primitives; and 2D/3D coordinate display.

Requires: 1 Megabyte RAM and CYBER STUDIO
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by Tom Hudson

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Two frames of CYBER STUDIO animation without CYBER PAINT enhancement. The same two frames are shown below them, after a CYBER PAINT touch-up.

CYBER PAINT™ 2.0

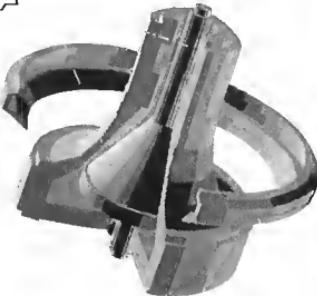
The pro animation studio

by Jim Kent

This program does it all! CYBER PAINT 2.0 is an animation system; a time-oriented paint program; a "cel" (celuloid) animation program; and a digital optical printer.

CYBER PAINT 2.0 contains all the standard paint tools—box, brush, rubber, line, fill, etc.—but adds the dimension of time animation. Images spin and glide around the screen like a magic carpet. Special features include a pixel f/x menu; palette change per frame and cut & paste color range; and an automatic traveling mask. All these features make CYBER PAINT 2.0 the fastest possible way to create professional looking animations.

Requires: 1 Megabyte RAM & Color Monitor (Upgrade from CYBER PAINT 1.0 \$25.00 plus original disk) ST0251-\$79.95- NOW \$69.95



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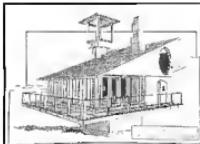
by Joe Chiazzese and Alan Page

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By David Stuart

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ST0265

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ST0254 3D Fonts Item by Doug Thomas (c) 1987
 Requires: CAD-3D 1.0 or CYBER STUDIO

ST0256 Cartoon Design™ by Maurice Molneaux and Andy Eddy (c) 1987
 Requires: CYBER STUDIO, CYBER CONTROL™ recommended

ST0261 Video Telling Design™ by Maurice Molneaux and Andy Eddy (c) 1987
 Requires: CYBER STUDIO, CYBER CONTROL™ recommended; CYBER PAINT™ for special f/x



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ST0242



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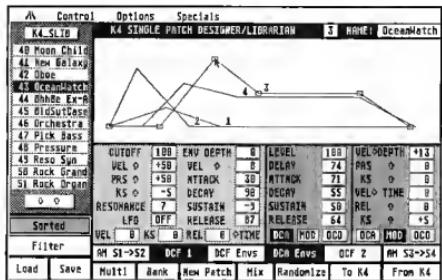
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Products Update

K4 Voice Development System

The K4 Voice Development System from Musicode integrates an editor, librarian and sequencer to support all areas of the Kawai K4 synthesizer.



The K4 Voice Development System from Musicode lets ST users obtain the maximum from their Kawai K4 synthesizer. The K4 VDS integrates an editor, librarian and sequencer to support all areas of the K4 instrument.

Users may edit single- and multi-patches, and the effects, output and drum sections of the K4. The program has quick, clear displays, click-and-drag

graphic-envelope editing and provides for easy organization of your patches within libraries and banks where you may use sort, filter, copy, swap and delete functions. And the powerful sequencer is always available from any point in the program.

K4 Voice Development System, \$99. **Musicode, 5575 Baltimore Drive, Suite 105-127, La Mesa, CA 92042.**

Federation

Spotlight Software and Electronic Arts have teamed up to bring you **Federation**, a strategic space trading and combat adventure game for the ST.

Federation combines a challenging starship flight simulator with a sophisticated free-market system to create a unique blend of action and strategy. The player controls a ship equipped with a flexible flight control console, weaponry and a vital communication system. Use the ship's guidance system to dock with space stations or actually land on alien planets. Money buys power and more advanced weapons and shields, so savvy players will wheel and deal with the local populations to get the best possible price for their cargo. The player sets the goal: advance to the rank of Admiral of the Federation of Free Traders or amass the greatest fortune possible.

Federation, \$49.95. **Electronic Arts, 1810 Gateway Drive, San Mateo, CA 94404, 800/245-4525.**

Harmony

Accolade announced the release of **The Game of Harmony**, an arcade game for the new age in which players must use a combination of strategy and concentration not to annihilate objects on the screen, but to keep them from blowing up. Accompanied by randomly generated musical scores, players control a single sphere on a screen filled with constantly moving, multicolored orbs. Your task is to gather together like-colored orbs.

The Game of Harmony, \$44.95.

Accolade, 550 South Winchester Boulevard, Suite 200, San Jose, CA, 95128, 408/985-1700.

ST SCSI Hard Disk Kits

Microvision announces ST/Mega SCSI hard disk kits. The **MV325** and the **MV650** provide 325 million bytes or 650 million bytes of disk storage. Desktop publishing, server and MIDI applications now use this much capacity.

The external chassis matches the ST/Mega style and color. The MV series drives are designed to save desk space with dimensions of 9.5 x 10 x 4.47 inches. The chassis includes a power supply, a rear-mounted micro-cooling fan, one SCSI ID and write protect. Changing the SCSI ID lets drives move easily between systems or daisy chain on a single system.

The MV325 and MV650 use Maxtor mechanisms which couple maximum reliability with ultra-fast 1-million byte/sec transfer rate and an 18ms average access time. Maxtor drives have proven their reliability in mainframe, mini-computer and server systems. The MV series drives are thoroughly tested and come preformatted so they just plug in and run.

MV325, \$1,995. MV650, \$2,995. Microvision, 18180 Cornell Road, Suite E, Beaverton, OR 97006, 503/690-6639.

*If you have a new product for the ST, we'd like to hear from you. Please send press releases and product photos to **Products Update**, START Magazine, 544 Second Street, San Francisco, CA 94107*

Latouche

Latouche, from Psychologi Logiciel, lets users design, load and save keyboard configurations from within their favorite program. It also lets users type accented characters by first typing the accent, then the desired character. All characters in the ST character

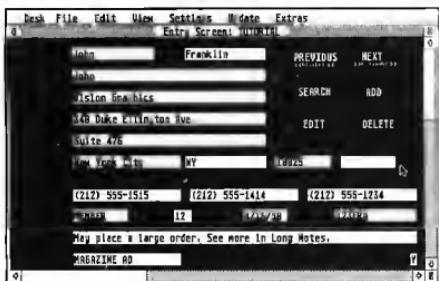
set can be used. The program can load a default keyboard at boot time and includes sample keyboards.

Latouche, \$14.95. **Psychologi Logiciel Software, C.P. 1522, Embrun, Ontario, K0A 1W0, 613/443-2435.**

G.I.M.E. Tele-communications

A new type of telecommunications program and a BBS, which have been in the conceptual and development stages for almost two years, are now available from Micro Creations. These unique applications — **G.I.M.E. Term** and **G.I.M.E. BBS** — boast a method of graphic image transmission that does not suffer from the long and drawn out transfer time of conventional methods such as Vid-Text graphics. Both programs have achieved an object-oriented system that is fast enough to be used routinely in daily on-line messages without becoming tiresome. Because the escape codes the system uses are VT-52 compatible (the ST's native screen protocol), the terminal will be completely compatible with ST BBSs that do not support this new extended graphic format. Sysops should be delighted to hear that the BBS is designed to take advantage of the GEM interface, making the job of running a board much less of an effort and more of a delight. Even the initial starting up of the BBS is a breeze due to the click and drag configuration program.

G.I.M.E. Term, \$30. G.I.M.E. BBS, \$40. Micro Creations, 4609 Millbrook Way, Bakersfield, CA 93313, 805/397-9414. ■



Maintaining mailing lists is easier than ever using Tracker/ST's integrated functions.

Tracker/ST

Step Ahead Software has released **Tracker/ST**, an exciting new productivity package designed specifically for the ST.

Tracker/ST is a fully GEM-based program that combines mailing list, mail merge and person-tracking features in a single integrated solution. Tracker/ST's mailing list functions include multiple separate mailing lists, the ability to print labels for all names or for names that meet certain criteria, 10 preset label formats (including one for Rolodex cards), the ability to edit, add and save new label sizes and full support for label printing on the Atari laser printer.

Tracker/ST, \$79.95. **Step Ahead Software, 496A Hudson Street, Suite F39, New York, NY 10014, 212/627-5830.**

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| <p>ST/ime \$59.95</p>  <p>Z-RAM/2.5 MEG</p> <p>Ultra low-profile solderless 520ST/520STfm 2.5 Meg memory upgrade. Fits under all RF-Shields, including the older 520ST's with external disk-drives. Plug & Play! Comes with 1yr. warranty, detailed manual, Ramdisk software and diagnostics on disk. \$129.95 w/o RAM \$299.95 with RAM</p> <p>Lithium 10year battery backed-up clock and calendar module that fits in all the STs. Install it under one TOS ROM chip and all your files will be date and time stamped correctly. Comes with digital corner clock display. Frees up your cartridge port. Stop wasting time setting timel 3yr. warranty</p> |  <p>Z-RAM/2.5 MEG</p> <p>Solderless Mega2 RAM upgrade to 4 Meg. Plugs into the back of the Mega2 and will not interfere with internal hard-drives. The easiest way to upgrade your Mega2 without soldering! Comes with complete instructions and diagnostics. \$149.95 without RAM \$319.95 with RAM chips</p> |  <p>Z-RAM 3-D/4MEG</p> <p>520STfm/1040 2.5 to 4 Megabyte Solderless Memory Upgrade Kit</p> <p>Innovative 3-D double-decker boards fit into the video-shifter metal box of the ST. Memory diagnostics and RAMdisk software included. 1yr. warranty and 30-day money-back guarantee. Super reliable data and ground connections make this the upgrade board for your ST.</p> <table border="0"> <tr> <td>ST. OK(no chips)</td> <td>\$149.95</td> </tr> <tr> <td>2.5Meg</td> <td>\$319.95</td> </tr> <tr> <td>4Meg</td> <td>\$549.95</td> </tr> </table> <p>ZUBAIR INTERFACES, INC 5243-B Paramount Blvd. Lakewood, CA 90712 Tel.(213) 408-6715 FAX:(213) 408-6748</p> | ST. OK(no chips) | \$149.95 | 2.5Meg | \$319.95 | 4Meg | \$549.95 |
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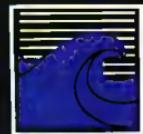
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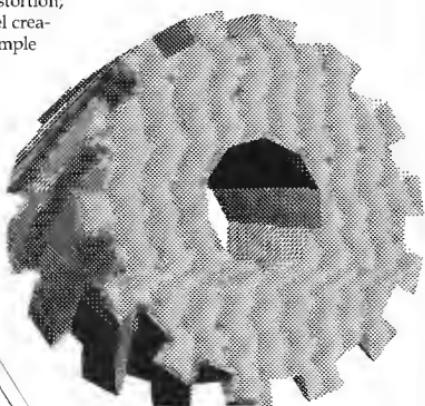
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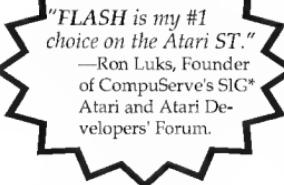
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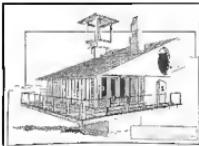
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